KITTERY - PORTSMOUTH
YORK - ROCKINGHAM COUNTY

PISCATAQUA RIVER BRIDGE
OVER
PISCATAQUA RIVER

PROJECT NO. AC-IM-1927(000)E
PROJECT LENGTH 1.748 mi.
BRIDGE NO. MAINE #6330, MAINE #1477,
& NEW HAMPSHIRE 258/128

Deck Cores & GPR Results

T·Y·LIN INTERNATIONAL
engineers | planners | scientists

MEMORANDUM

To: Leanne Timberlake, MaineDOT Project Manager

From: Josh Olund, T.Y. Lin International

Date: February 16, 2016

Re: Piscatiqua River Bridge, WIN 01927.00
Synopsis of Deck Core Results

CC: File

Background:

The subject bridge consists of three sequential structures along I-95 between Portsmouth, NH and Kittery, ME. Originally built in 1972, this bridge now carries over 74,000 vehicles a day and is considered the most important bridge in Maine to the State's economy. Considering the importance of the bridge, the subject project is being carried out to rehabilitate and prevent future, early onset of deterioration of various components.

In support of the project, a deck coring program was instilled to determine concrete strength and the extent of chloride penetration in an effort to better predict volume of deck patching that may be required or if replacement of the entire deck may be warranted. High-speed Ground Penetrating Radar (GPR) was performed by MaineDOT to identify areas of potentially unsound and sound concrete. Results of the high-speed GPR provided a basis for determining core locations. During coring operations, handheld GPR was also obtained by MaineDOT to improve resolution near core locations.

Deck coring operations were performed by MaineDOT with T.Y Lin International support on the nights of November 3 and November 17, 2015. A total of 50 cores were recovered, 25 from both the northbound and southbound lanes. MaineDOT performed compression and chloride penetration tests on the cores and results were received on January 22 and January 25, 2016. Results and a summary of the GPR testing was received on February 3, 2016. The MaineDOT provided report indicates no apparent correlation between GPR data and core test results making it difficult to extrapolate core results to determine integrity of the remainder of the deck.

Deck Core Test Results:

Visual Examination:

A visual examination of the core photographs supplied by MaineDOT, prior to testing, yields the following observations:

- 37 of the cores appear to have the waterproofing membrane still intact;
- 6 of the cores appear to have cut through reinforcement, none of which appears rusted;
- 2 cores (#8 and 13) appear to have passed through concrete patches performed in the 1987 rehabilitation project.
- 1 core (#31) appears to have passed through a transverse construction joint;
- 1 core (#50) shows signs of delamination or micro-fracturing exacerbated by core removal near the top mat of reinforcement

Compression Strength:

The minimum, average, and standard deviation compressive strengths are 5,320 psi, 8,218 psi, and 1,457 psi respectively based on results provided. Although the sample size is not large enough to draw conclusions across the

entire deck, the results generally indicate adequate strength compared to current standard design strength of 4,000 psi.

Chloride Penetration:

Chloride tests were performed at various depths within the core samples to determine extent of penetration within the deck and at what concentrations. FHWA considers corrosion in uncoated rebar to initiate once chloride ion concentrations reach 0.2% by weight of cement.[1] Assuming 630 lb of cement per cubic yard of concrete, this amounts to 1.26 lb/cy of chloride to initiate rebar corrosion.

Test results identify 45 of the 49 cores tested have chloride concentrations below the aforementioned threshold. It appears core #49 was not tested for chloride content.

Test results for cores #3 and #28 indicate concentrations exceeding the aforementioned threshold. However, further examination of these cores and tests parameters indicates the high concentrations are within the top ± ½" of the concrete deck. Test results of these same cores at the assumed level of rebar (approximately 2.5" below the concrete surface or 5" below the core surface) show lower chloride concentrations of approximately 0.2-0.4 lb/cy.

Two cores (#31 and 50) show high chloride concentrations at greater depths.

- Core 31 was inadvertently taken at an apparent transverse construction joint in the deck. For this reason, it can be reasoned that chloride results are perhaps influenced by increased surface area and exposure to salt-laden air or localized failure of the waterproofing membrane near the joint and seepage of salt water through the cold joint. These results are likely not representative of the deck, other than at similar construction joint locations, and it could also be reasoned that the chloride concentrations are still surficial and not promoting corrosion in the rebar.
- Core 50 shows signs of delamination within the top mat of rebar and chloride content slightly above the aforementioned threshold, indicating rebar corrosion.

Summary:

The cores indicate the deck to be in relatively good condition with the potential to uncover isolated areas requiring patch work extending below the top mat of rebar. Deck core results and information discussed herein will be used to estimate the extents of deck patching needs, depths, and quantities to better set a project budget and allow contractors to better bid the job.

Questions regarding information discussed in this memo should be directed to Josh Olund via email at jolund@tylin.com.

Sincerely,

Josh Olund, P.E.
T.Y. Lin International

Attachments:

1. Northbound Core Results with Pictures
2. Southbound Core Results with Pictures
3. GPR Result Summary by MaineDOT

[1] Federal Highway Administration (FHWA), *Corrosion Evaluation of Epoxy-coated, Metallic-clad and Solid Metallic Reinforcing Bars in Concrete*, Report No. FHWA RD 98 153, December 1998.

BRIDGE CORE TEST REPORT
Central Laboratory

SAMPLE INFORMATION

Reference No.	Boring No./Sample No.	Sample Description	Sampled	Received
275612		**BRIDGE CORE**	**11/3/2015**	**11/4/2015**

Sample Type: **OTHER** Sampler: **ROBERT HARADON** Sample Location: **ROADWAY**

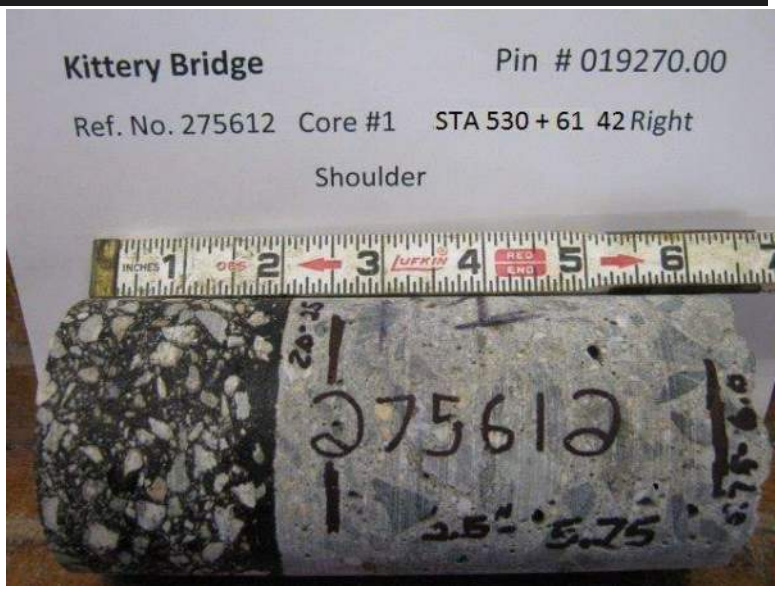
WIN/Town **019270.00 - KITTERY** Station: **530 + 61** Offset, ft: **42, RT**

Contractor: Resident: Dbfg, ft:

TEST RESULTS

Shear Bond (MeDOT)		
	Location, inch	Strength, psi
Specimen 1		
Specimen 2		

Chloride Content (T 260)	
Location, inch	Chloride Level, lb/yd³
2.0-2.5	**0.47**
5.75-6.0	**0.41**



Compressive Strength (T 22)		
	Location, inch	Strength, psi
Specimen 1	**2.5" - 5.75"**	**8550.00**
Specimen 2		

Rebar Corrosion (MeDOT)		
	Location, inch	Corrosion Level
Specimen 1		
Specimen 2		
Specimen 3		
Specimen 4		

Comments:

Final report. Offset from gutter based on GPR 8.7. Right. Shoulder core #1.

AUTHORIZATION AND DISTRIBUTION

Reported by: **ROBERT HARADON** Date Reported: **1/21/2016**

Paper Copy: Structure File Electronic: Customer —

BRIDGE CORE TEST REPORT
Central Laboratory

SAMPLE INFORMATION

Reference No.	Boring No./Sample No.	Sample Description	Sampled	Received
275613		**BRIDGE CORE**	**11/3/2015**	**11/4/2015**

Sample Type: **OTHER** Sampler: **ROBERT HARADON** Sample Location: **ROADWAY**

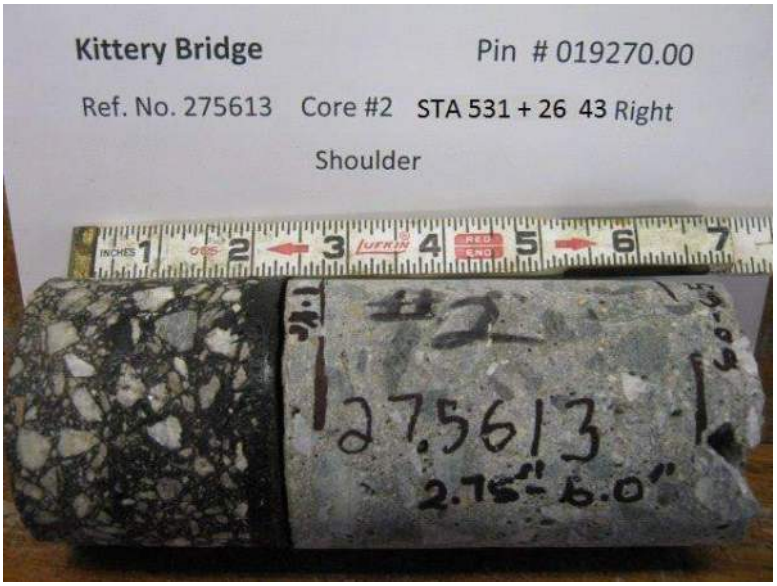
WIN/Town **019270.00 - KITTERY** Station: **531+26** Offset, ft: **43, RT**

Contractor: Resident: Dbfg, ft:

TEST RESULTS

Shear Bond (MeDOT)		
	Location, inch	Strength, psi
Specimen 1		
Specimen 2		

Chloride Content (T 260)	
Location, inch	Chloride Level, lb/yd³
2.5-2.75	**0.38**
6.0-6.5	**0.38**



Compressive Strength (T 22)		
	Location, inch	Strength, psi
Specimen 1	**2.75" - 6.0"**	**9250.00**
Specimen 2		

Rebar Corrosion (MeDOT)		
	Location, inch	Corrosion Level
Specimen 1		
Specimen 2		
Specimen 3		
Specimen 4		

Comments:

Final report. Wear surface not attached to core. Offset from gutter based on GPR 7.9. Right. Shoulder core #2.

AUTHORIZATION AND DISTRIBUTION

Reported by: **ROBERT HARADON** Date Reported: **1/21/2016**

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BRIDGE CORE TEST REPORT
Central Laboratory

SAMPLE INFORMATION

Reference No.	Boring No./Sample No.	Sample Description	Sampled	Received
275614		**BRIDGE CORE**	**11/3/2015**	**11/4/2015**

Sample Type: **OTHER** Sampler: **ROBERT HARADON** Sample Location: **ROADWAY**

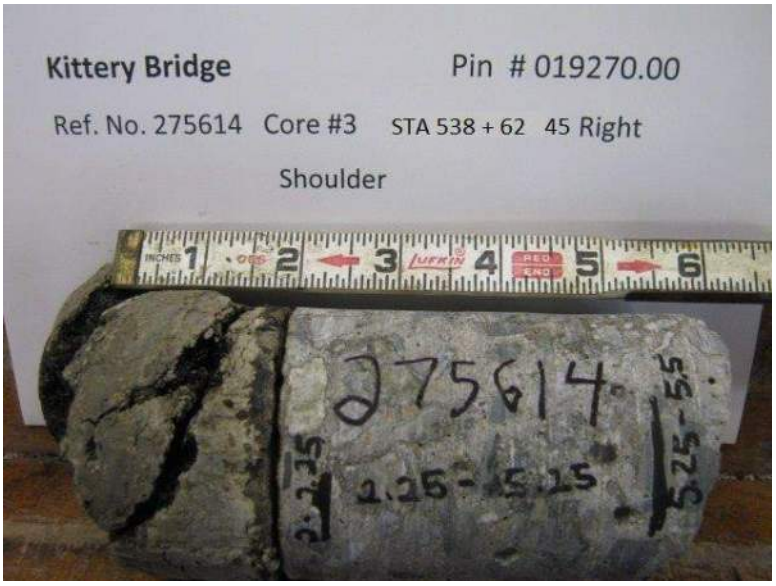
WIN/Town **019270.00 - KITTERY** Station: **538+62** Offset, ft: **45, RT**

Contractor: Resident: Dbfg, ft:

TEST RESULTS

Shear Bond (MeDOT)		
	Location, inch	Strength, psi
Specimen 1		
Specimen 2		

Chloride Content (T 260)	
Location, inch	Chloride Level, lb/yd³
2.0-2.25	**1.61**
5.25-5.5	**0.46**



Compressive Strength (T 22)		
	Location, inch	Strength, psi
Specimen 1	**2.25" - 5.25"**	**7140.00**
Specimen 2		

Rebar Corrosion (MeDOT)		
	Location, inch	Corrosion Level
Specimen 1		
Specimen 2		
Specimen 3		
Specimen 4		

Comments:

Final report. Offset from gutter based on GPR 6.0'. Right. Shoulder core #3.

AUTHORIZATION AND DISTRIBUTION

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BRIDGE CORE TEST REPORT
Central Laboratory

SAMPLE INFORMATION

Reference No.	Boring No./Sample No.	Sample Description	Sampled	Received
275615		**BRIDGE CORE**	**11/3/2015**	**11/4/2015**

Sample Type: **OTHER** Sampler: **ROBERT HARADON** Sample Location:

WIN/Town **019270.00 - KITTERY** Station: **546+06** Offset, ft: **45, RT**

Contractor: Resident: Dbfg, ft:

TEST RESULTS

Shear Bond (MeDOT)		
	Location, inch	Strength, psi
Specimen 1		
Specimen 2		

Chloride Content (T 260)	
Location, inch	Chloride Level, lb/yd³
2.5-3.0	**1**
3.5-4.0	**0.29**
4.5-5.0	**0.3**
6.0-6.5	**0.33**

Compressive Strength (T 22)		
	Location, inch	Strength, psi
Specimen 1		
Specimen 2		

Rebar Corrosion (MeDOT)		
	Location, inch	Corrosion Level
Specimen 1		
Specimen 2		
Specimen 3		
Specimen 4		

Comments:

Final report. Offset from gutter based on GPR 6.0'. Right. Shoulder core #4.
No compressive strength testing to be performed due to rebar in core.

AUTHORIZATION AND DISTRIBUTION

Reported by: **ROBERT HARADON** Date Reported: **1/21/2016**

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12 Desert Rd, Freeport MaineDOT TESTING LABORATORIES 219 Hogan Rd, Bangor

BRIDGE CORE TEST REPORT
Central Laboratory

SAMPLE INFORMATION

Reference No.	Boring No./Sample No.	Sample Description	Sampled	Received
275616		**BRIDGE CORE**	**11/3/2015**	**11/4/2015**

Sample Type: **OTHER** Sampler: **ROBERT HARADON** Sample Location: **ROADWAY**

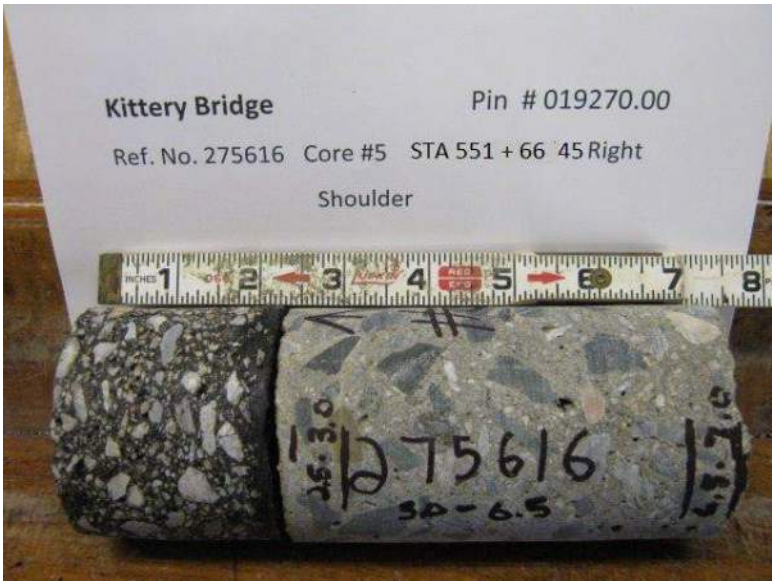
WIN/Town **019270.00 - KITTERY** Station: **551+66** Offset, ft: **45, RT**

Contractor: Resident: Dbfg, ft:

TEST RESULTS

Shear Bond (MeDOT)		
	Location, inch	Strength, psi
Specimen 1		
Specimen 2		

Chloride Content (T 260)	
Location, inch	Chloride Level, lb/yd³
2.5-3.0	**0.65**
6.5-7.0	**0.34**



Compressive Strength (T 22)		
	Location, inch	Strength, psi
Specimen 1	**3.0" - 6.5"**	**6230.00**
Specimen 2		

Rebar Corrosion (MeDOT)		
	Location, inch	Corrosion Level
Specimen 1		
Specimen 2		
Specimen 3		
Specimen 4		

Comments:

Final report. Offset from gutter based on GPR 6.0'. Right. Shoulder core #5.

AUTHORIZATION AND DISTRIBUTION

Reported by: **ROBERT HARADON** Date Reported: **1/21/2016**

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BRIDGE CORE TEST REPORT
Central Laboratory

SAMPLE INFORMATION

Reference No.	Boring No./Sample No.	Sample Description	Sampled	Received
275617		**BRIDGE CORE**	**11/3/2015**	**11/4/2015**

Sample Type: **OTHER** Sampler: **ROBERT HARADON** Sample Location: **ROADWAY**

WIN/Town **019270.00 - KITTERY** Station: **560+91** Offset, ft: **45, RT**

Contractor: Resident: Dbfg, ft:

TEST RESULTS

Shear Bond (MeDOT)		
	Location, inch	Strength, psi
Specimen 1		
Specimen 2		

Chloride Content (T 260)	
Location, inch	Chloride Level, lb/yd³
2.25-2.75	**0.31**
6.25-6.5	**0.28**

Compressive Strength (T 22)		
	Location, inch	Strength, psi
Specimen 1	**2.75" - 6.25"**	**8210.00**
Specimen 2		

Rebar Corrosion (MeDOT)		
	Location, inch	Corrosion Level
Specimen 1		
Specimen 2		
Specimen 3		
Specimen 4		

Comments:

Final report. Offset from gutter based on 6.0'. Right, Shoulder Core #6.

AUTHORIZATION AND DISTRIBUTION

Reported by: **ROBERT HARADON** Date Reported: **1/21/2016**

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BRIDGE CORE TEST REPORT
Central Laboratory

SAMPLE INFORMATION

Reference No.	Boring No./Sample No.	Sample Description	Sampled	Received
275618		**BRIDGE CORE**	**11/3/2015**	**11/4/2015**

Sample Type: **OTHER** Sampler: **ROBERT HARADON** Sample Location:

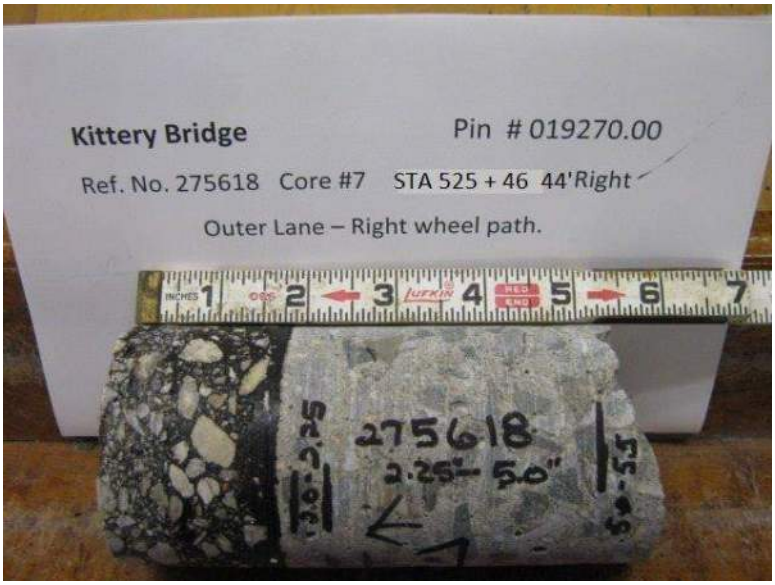
WIN/Town **019270.00 - KITTERY** Station: **525+46** Offset, ft: **44, RT**

Contractor: Resident: Dbfg, ft:

TEST RESULTS

Shear Bond (MeDOT)		
	Location, inch	Strength, psi
Specimen 1		
Specimen 2		

Chloride Content (T 260)	
Location, inch	Chloride Level, lb/yd³
2.0-2.5	**1.24**
5.0-5.5	**0.4**



Compressive Strength (T 22)		
	Location, inch	Strength, psi
Specimen 1	**2.25" - 5.0"**	**7830.00**
Specimen 2		

Rebar Corrosion (MeDOT)		
	Location, inch	Corrosion Level
Specimen 1		
Specimen 2		
Specimen 3		
Specimen 4		

Comments:

Final report. Offset from right shoulder line on GPR 4.0'. Right. Right lane core #7 right wheel path.

AUTHORIZATION AND DISTRIBUTION

Reported by: **ROBERT HARADON** Date Reported: **1/21/2016**

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BRIDGE CORE TEST REPORT
Central Laboratory

SAMPLE INFORMATION

Reference No.	Boring No./Sample No.	Sample Description	Sampled	Received
275619		**BRIDGE CORE**	**11/3/2015**	**11/4/2015**

Sample Type: **OTHER** Sampler: **ROBERT HARADON** Sample Location: **ROADWAY**

WIN/Town **019270.00 - KITTERY** Station: **537+84** Offset, ft: **36, RT**

Contractor: Resident: Dbfg, ft:

TEST RESULTS

Shear Bond (MeDOT)		
	Location, inch	Strength, psi
Specimen 1		
Specimen 2		

Chloride Content (T 260)	
Location, inch	Chloride Level, lb/yd³
2.25-2.75	**0.39**
2.75-3.25	**0.29**
4.25-4.75	**0.35**
6.0-6.5	**0.31**

Compressive Strength (T 22)		
	Location, inch	Strength, psi
Specimen 1		
Specimen 2		

Rebar Corrosion (MeDOT)		
	Location, inch	Corrosion Level
Specimen 1		
Specimen 2		
Specimen 3		
Specimen 4		

Comments:

Final report. Offset from right shoulder line on GPR 4.0', right. Right lane core #8 right wheel path.
No compressive strength testing to be performed due to rebar in core.

AUTHORIZATION AND DISTRIBUTION

Reported by: **ROBERT HARADON** Date Reported: **1/21/2016**

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BRIDGE CORE TEST REPORT
Central Laboratory

SAMPLE INFORMATION

Reference No.	Boring No./Sample No.	Sample Description	Sampled	Received
275620		**BRIDGE CORE**	**11/3/2015**	**11/4/2015**

Sample Type: **OTHER** Sampler: **ROBERT HARADON** Sample Location: **ROADWAY**

WIN/Town **019270.00 - KITTERY** Station: **545+41** Offset, ft: **35, RT**

Contractor: Resident: Dbfg, ft:

TEST RESULTS

Shear Bond (MeDOT)		
	Location, inch	Strength, psi
Specimen 1		
Specimen 2		

Chloride Content (T 260)	
Location, inch	Chloride Level, lb/yd³
2.25-2.75	**0.39**
5.75-6.0	**0.42**

Compressive Strength (T 22)		
	Location, inch	Strength, psi
Specimen 1	**2.75" - 5.75"**	**5930.00**
Specimen 2		

Rebar Corrosion (MeDOT)		
	Location, inch	Corrosion Level
Specimen 1		
Specimen 2		
Specimen 3		
Specimen 4		

Comments:

Final report. Offset from right shoulder line on GPR 6.0'. Right. Right lane core #9 quarter point (middle of lane).

AUTHORIZATION AND DISTRIBUTION

Reported by: **ROBERT HARADON** Date Reported: **1/21/2016**

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BRIDGE CORE TEST REPORT
Central Laboratory

SAMPLE INFORMATION

Reference No.	Boring No./Sample No.	Sample Description	Sampled	Received
275621		**BRIDGE CORE**	**11/3/2015**	**11/4/2015**

Sample Type: **OTHER** Sampler: **ROBERT HARADON** Sample Location: **ROADWAY**

WIN/Town **019270.00 - KITTERY** Station: **546+86** Offset, ft: **35, RT**

Contractor: Resident: Dbfg, ft:

TEST RESULTS

Shear Bond (MeDOT)		
	Location, inch	Strength, psi
Specimen 1		
Specimen 2		

Chloride Content (T 260)	
Location, inch	Chloride Level, lb/yd³
2.0-2.5	**0.35**
3.25-3.75	**0.25**
3.75-4.5	**0.25**
5.5-6.0	**0.3**

Compressive Strength (T 22)		
	Location, inch	Strength, psi
Specimen 1		
Specimen 2		

Rebar Corrosion (MeDOT)		
	Location, inch	Corrosion Level
Specimen 1		
Specimen 2		
Specimen 3		
Specimen 4		

Comments:

Final report. Offset from right shoulder line on GPR 6.0'. Right. Right lane core #10 quarter point (middle of lane). No compressive strength testing to be performed due to rebar in core.

AUTHORIZATION AND DISTRIBUTION

Reported by: **ROBERT HARADON** Date Reported: **1/21/2016**

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BRIDGE CORE TEST REPORT
Central Laboratory

SAMPLE INFORMATION

Reference No.	Boring No./Sample No.	Sample Description	Sampled	Received
275622		**BRIDGE CORE**	**11/3/2015**	**11/4/2015**

Sample Type: **OTHER** Sampler: **ROBERT HARADON** Sample Location: **ROADWAY**

WIN/Town **019270.00 - KITTERY** Station: **554+71** Offset, ft: **35, RT**

Contractor: Resident: Dbfg, ft:

TEST RESULTS

Shear Bond (MeDOT)		
	Location, inch	Strength, psi
Specimen 1		
Specimen 2		

Chloride Content (T 260)	
Location, inch	Chloride Level, lb/yd³
2.0-2.5	**0.52**
6.5-7.0	**0.33**

Compressive Strength (T 22)		
	Location, inch	Strength, psi
Specimen 1	**2.5" - 6.5"**	**5320.00**
Specimen 2		

Rebar Corrosion (MeDOT)		
	Location, inch	Corrosion Level
Specimen 1		
Specimen 2		
Specimen 3		
Specimen 4		

Comments:

Final report. Offset from right shoulder line on GPR 6.0'. Right Right land core #11 quarter point (center of lane).

AUTHORIZATION AND DISTRIBUTION

Reported by: **ROBERT HARADON** Date Reported: **1/21/2016**

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BRIDGE CORE TEST REPORT
Central Laboratory

SAMPLE INFORMATION

Reference No.	Boring No./Sample No.	Sample Description	Sampled	Received
275623		**BRIDGE CORE**	**11/3/2015**	**11/4/2015**

Sample Type: **OTHER** Sampler: **ROBERT HARADON** Sample Location: **ROADWAY**

WIN/Town **019270.00 - KITTERY** Station: **562+76** Offset, ft: **30, RT**

Contractor: Resident: Dbfg, ft:

TEST RESULTS

Shear Bond (MeDOT)		
	Location, inch	Strength, psi
Specimen 1		
Specimen 2		

Chloride Content (T 260)	
Location, inch	Chloride Level, lb/yd³
2.25-2.75	**0.32**
6.0-6.5	**0.35**

Compressive Strength (T 22)		
	Location, inch	Strength, psi
Specimen 1	**2.75" - 6.0"**	**7750.00**
Specimen 2		

Rebar Corrosion (MeDOT)		
	Location, inch	Corrosion Level
Specimen 1		
Specimen 2		
Specimen 3		
Specimen 4		

Comments:

Final report. Offset from right shoulder line on GPR 6.0'. Right Right land core #12 left wheel path.

AUTHORIZATION AND DISTRIBUTION

Reported by: **ROBERT HARADON** Date Reported: **1/21/2016**

Paper Copy: Structure File Electronic: Customer —

BRIDGE CORE TEST REPORT
Central Laboratory

SAMPLE INFORMATION

Reference No.	Boring No./Sample No.	Sample Description	Sampled	Received
275624		**BRIDGE CORE**	**11/3/2015**	**11/4/2015**

Sample Type: **OTHER** Sampler: **ROBERT HARADON** Sample Location: **ROADWAY**

WIN/Town **019270.00 - KITTERY** Station: **564 + 86** Offset, ft: **35, RT**

Contractor: Resident: Dbfg, ft:

TEST RESULTS

Shear Bond (MeDOT)		
	Location, inch	Strength, psi
Specimen 1		
Specimen 2		

Chloride Content (T 260)	
Location, inch	Chloride Level, lb/yd³
5.25-5.5	**0.42**

Compressive Strength (T 22)		
	Location, inch	Strength, psi
Specimen 1	**2.5" - 5.25"**	**7340.00**
Specimen 2		

Rebar Corrosion (MeDOT)		
	Location, inch	Corrosion Level
Specimen 1		
Specimen 2		
Specimen 3		
Specimen 4		

Comments:

Final report. Offset from right shoulder line on GPR 8.0'. Right . Right lane core #13 quarter point (middle of lane).

AUTHORIZATION AND DISTRIBUTION

Reported by: **ROBERT HARADON** Date Reported: **1/21/2016**

Paper Copy: Structure File Electronic: Customer —

BRIDGE CORE TEST REPORT
Central Laboratory

SAMPLE INFORMATION

Reference No.	Boring No./Sample No.	Sample Description	Sampled	Received
275625		**BRIDGE CORE**	**11/3/2015**	**11/4/2015**

Sample Type: **OTHER** Sampler: **ROBERT HARADON** Sample Location: **ROADWAY**

WIN/Town **019270.00 - KITTERY** Station: **529 + 31** Offset, ft: **25, RT**

Contractor: Resident: Dbfg, ft:

TEST RESULTS

Shear Bond (MeDOT)		
	Location, inch	Strength, psi
Specimen 1		
Specimen 2		

Chloride Content (T 260)	
Location, inch	Chloride Level, lb/yd³
2.0-2.5	**0.5**
2.5-3.0	**0.33**
6.5-7.0	**0.33**

Compressive Strength (T 22)		
	Location, inch	Strength, psi
Specimen 1	**3.0" - 6.5"**	**8060.00**
Specimen 2		

Rebar Corrosion (MeDOT)		
	Location, inch	Corrosion Level
Specimen 1		
Specimen 2		
Specimen 3		
Specimen 4		

Comments:

Final report. Offset from right shoulder line on GPR 6.0'. Right. Middle lane core #14 quarter point (middle of lane).

AUTHORIZATION AND DISTRIBUTION

Reported by: **ROBERT HARADON** Date Reported: **1/21/2016**

Paper Copy: Structure File Electronic: Customer —

BRIDGE CORE TEST REPORT
Central Laboratory

SAMPLE INFORMATION

Reference No.	Boring No./Sample No.	Sample Description	Sampled	Received
301076		**BRIDGE CORE**	**11/3/2015**	**11/4/2015**

Sample Type: **OTHER** Sampler: **ROBERT HARADON** Sample Location: **ROADWAY**

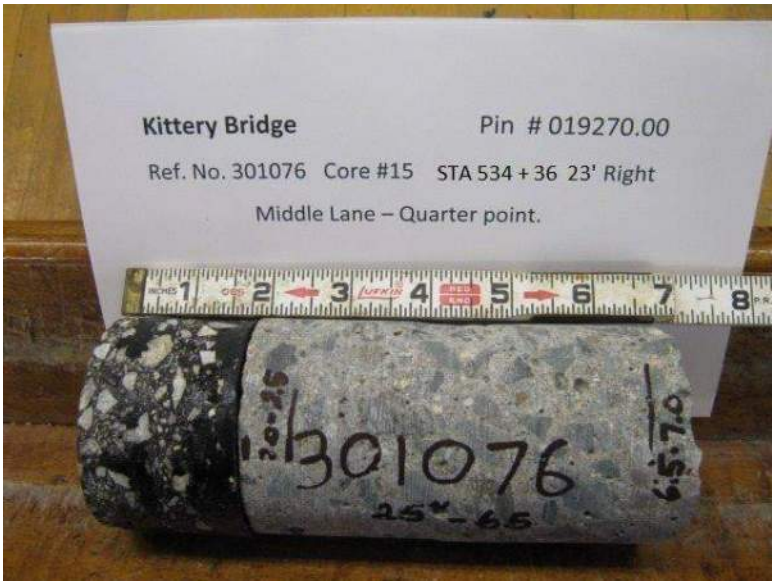
WIN/Town **019270.00 - KITTERY** Station: **534 + 36** Offset, ft: **23, RT**

Contractor: Resident: Dbfg, ft:

TEST RESULTS

Shear Bond (MeDOT)		
	Location, inch	Strength, psi
Specimen 1		
Specimen 2		

Chloride Content (T 260)	
Location, inch	Chloride Level, lb/yd³
2.0-2.5	**1.07**
6.5-7.0	**0.35**



Compressive Strength (T 22)		
	Location, inch	Strength, psi
Specimen 1	**2.5" - 6.0"**	**8360.00**
Specimen 2		

Rebar Corrosion (MeDOT)		
	Location, inch	Corrosion Level
Specimen 1		
Specimen 2		
Specimen 3		
Specimen 4		

Comments:

Final report. Offset from right line on GPR 6.0'. Right. Middle lane core #15 quarter point (middle of lane).

AUTHORIZATION AND DISTRIBUTION

Reported by: **ROBERT HARADON** Date Reported: **1/21/2016**

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BRIDGE CORE TEST REPORT
Central Laboratory

SAMPLE INFORMATION

Reference No.	Boring No./Sample No.	Sample Description	Sampled	Received
301077		**BRIDGE CORE**	**11/3/2015**	**11/4/2015**

Sample Type: **OTHER** Sampler: **ROBERT HARADON** Sample Location: **ROADWAY**

WIN/Town **019270.00 - KITTERY** Station: **544 + 36** Offset, ft: **24, RT**

Contractor: Resident: Dbfg, ft:

TEST RESULTS

Shear Bond (MeDOT)		
	Location, inch	Strength, psi
Specimen 1		
Specimen 2		

Chloride Content (T 260)	
Location, inch	Chloride Level, lb/yd³
1.75-2.25	**0.3**
6.0-6.5	**0.31**
6.5-7.0	**0.29**

Compressive Strength (T 22)		
	Location, inch	Strength, psi
Specimen 1	**2.25" - 6.0"**	**8110.00**
Specimen 2		

Rebar Corrosion (MeDOT)		
	Location, inch	Corrosion Level
Specimen 1		
Specimen 2		
Specimen 3		
Specimen 4		

Comments:

Final report. Offset from right lane line on GPR 4.0'. Right. Middle lane core #16 right wheel path.

AUTHORIZATION AND DISTRIBUTION

Reported by: **ROBERT HARADON** Date Reported: **1/21/2016**

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BRIDGE CORE TEST REPORT
Central Laboratory

SAMPLE INFORMATION

Reference No.	Boring No./Sample No.	Sample Description	Sampled	Received
301078		**BRIDGE CORE**	**11/3/2015**	**11/4/2015**

Sample Type: **OTHER** Sampler: **ROBERT HARADON** Sample Location: **ROADWAY**

WIN/Town **019270.00 - KITTERY** Station: **555 + 26** Offset, ft: **18, RT**

Contractor: Resident: Dbfg, ft:

TEST RESULTS

Shear Bond (MeDOT)		
	Location, inch	Strength, psi
Specimen 1		
Specimen 2		

Chloride Content (T 260)	
Location, inch	Chloride Level, lb/yd³
1.5-2.0	**0.4**
2.0-2.5	**0.39**
6.5-7.0	**0.34**

Compressive Strength (T 22)		
	Location, inch	Strength, psi
Specimen 1	**2.5" - 6.5"**	**6390.00**
Specimen 2		

Rebar Corrosion (MeDOT)		
	Location, inch	Corrosion Level
Specimen 1		
Specimen 2		
Specimen 3		
Specimen 4		

Comments:

Final report. Offset from right lane line on GPR 8.0'. Right. Middle lane core # 17 left wheel path.

AUTHORIZATION AND DISTRIBUTION

Reported by: **ROBERT HARADON** Date Reported: **1/21/2016**

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BRIDGE CORE TEST REPORT
Central Laboratory

SAMPLE INFORMATION

Reference No.	Boring No./Sample No.	Sample Description	Sampled	Received
301079		**BRIDGE CORE**	**11/3/2015**	**11/4/2015**

Sample Type: **OTHER** Sampler: **ROBERT HARADON** Sample Location: **ROADWAY**

WIN/Town **019270.00 - KITTERY** Station: **556 + 03** Offset, ft: **18, RT**

Contractor: Resident: Dbfg, ft:

TEST RESULTS

Shear Bond (MeDOT)		
	Location, inch	Strength, psi
Specimen 1		
Specimen 2		

Chloride Content (T 260)	
Location, inch	Chloride Level, lb/yd³
2.0-2.5	**0.31**
6.25-6.5	**0.32**

Compressive Strength (T 22)		
	Location, inch	Strength, psi
Specimen 1	**2.5" - 6.25"**	**7330.00**
Specimen 2		

Rebar Corrosion (MeDOT)		
	Location, inch	Corrosion Level
Specimen 1		
Specimen 2		
Specimen 3		
Specimen 4		

Comments:

Final report. Offset from right lane line on GPR 8.0'. Right. Middle lane core #18 left wheel path.

AUTHORIZATION AND DISTRIBUTION

Reported by: **ROBERT HARADON** Date Reported: **1/21/2016**

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BRIDGE CORE TEST REPORT
Central Laboratory

SAMPLE INFORMATION

Reference No.	Boring No./Sample No.	Sample Description	Sampled	Received
301080		**BRIDGE CORE**	**11/3/2015**	**11/5/2015**

Sample Type: **OTHER** Sampler: **ROBERT HARADON** Sample Location: **ROADWAY**

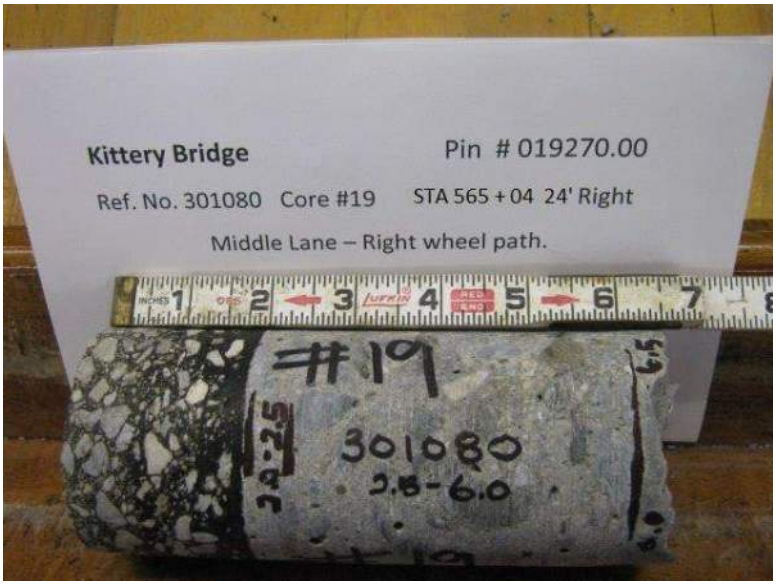
WIN/Town **019270.00 - KITTERY** Station: **565 + 04** Offset, ft: **24, RT**

Contractor: Resident: Dbfg, ft:

TEST RESULTS

Shear Bond (MeDOT)		
	Location, inch	Strength, psi
Specimen 1		
Specimen 2		

Chloride Content (T 260)	
Location, inch	Chloride Level, lb/yd³
2.0-2.5	**0.42**
6.0-6.5	**0.36**



Compressive Strength (T 22)		
	Location, inch	Strength, psi
Specimen 1	**2.5" - 6.0"**	**8030.00**
Specimen 2		

Rebar Corrosion (MeDOT)		
	Location, inch	Corrosion Level
Specimen 1		
Specimen 2		
Specimen 3		
Specimen 4		

Comments:

Final report. Offset from right lane line on GPR 4.0'. Right . Middle lane core # 19 right wheel path.

AUTHORIZATION AND DISTRIBUTION

Reported by: **ROBERT HARADON** Date Reported: **1/21/2016**

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BRIDGE CORE TEST REPORT
Central Laboratory

SAMPLE INFORMATION

Reference No.	Boring No./Sample No.	Sample Description	Sampled	Received
301081		**BRIDGE CORE**	**11/3/2015**	**11/4/2015**

Sample Type: **OTHER** Sampler: **ROBERT HARADON** Sample Location: **ROADWAY**

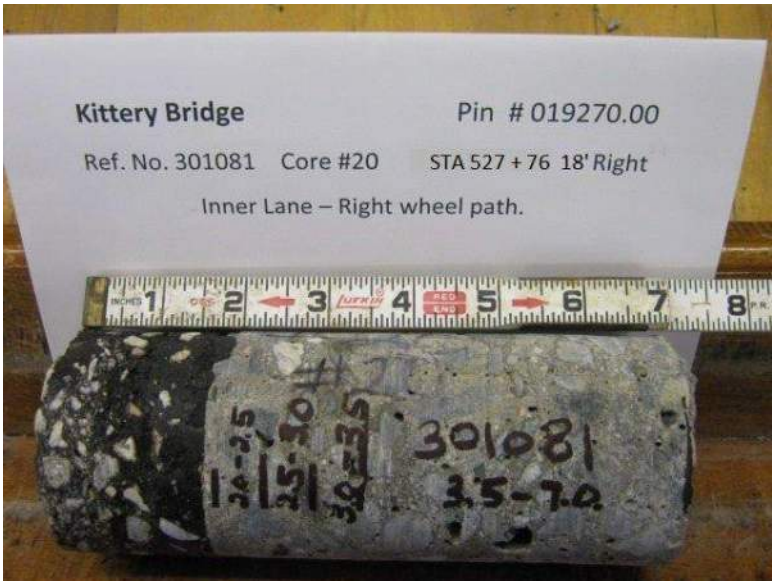
WIN/Town **019270.00 - KITTERY** Station: **527 + 76** Offset, ft: **18, RT**

Contractor: Resident: Dbfg, ft:

TEST RESULTS

Shear Bond (MeDOT)		
	Location, inch	Strength, psi
Specimen 1		
Specimen 2		

Chloride Content (T 260)	
Location, inch	Chloride Level, lb/yd³
2.0-2.5	**0.39**
2.5-3.0	**0.31**
3.0-3.5	**0.32**



Compressive Strength (T 22)		
	Location, inch	Strength, psi
Specimen 1	**3.5" - 7.0"**	**9690.00**
Specimen 2		

Rebar Corrosion (MeDOT)		
	Location, inch	Corrosion Level
Specimen 1		
Specimen 2		
Specimen 3		
Specimen 4		

Comments:

Final report. Offset from right lane line on GPR 4.0'. Right. Left lane core # 20 right wheel path.

AUTHORIZATION AND DISTRIBUTION

Reported by: **ROBERT HARADON** Date Reported: **1/21/2016**

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BRIDGE CORE TEST REPORT
Central Laboratory

SAMPLE INFORMATION

Reference No.	Boring No./Sample No.	Sample Description	Sampled	Received
301082		**BRIDGE CORE**	**11/3/2015**	**11/4/2015**

Sample Type: **OTHER** Sampler: **ROBERT HARADON** Sample Location: **ROADWAY**

WIN/Town **019270.00 - KITTERY** Station: **532 + 76** Offset, ft: **11, RT**

Contractor: Resident: Dbfg, ft:

TEST RESULTS

Shear Bond (MeDOT)		
	Location, inch	Strength, psi
Specimen 1		
Specimen 2		

Chloride Content (T 260)	
Location, inch	Chloride Level, lb/yd³
2.0-2.5	**0.64**
5.0-5.5	**0.36**

Compressive Strength (T 22)		
	Location, inch	Strength, psi
Specimen 1	**2.5" - 5"**	**8120.00**
Specimen 2		

Rebar Corrosion (MeDOT)		
	Location, inch	Corrosion Level
Specimen 1		
Specimen 2		
Specimen 3		
Specimen 4		

Comments:

Final report. Offset from right lane line on GPR 6.0'. Right. Left lane core # 21 quarter point (middle of lane).

AUTHORIZATION AND DISTRIBUTION

Reported by: **ROBERT HARADON** Date Reported: **1/21/2016**

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BRIDGE CORE TEST REPORT
Central Laboratory

SAMPLE INFORMATION

Reference No.	Boring No./Sample No.	Sample Description	Sampled	Received
301083		**BRIDGE CORE**	**11/3/2015**	**11/4/2015**

Sample Type: **OTHER** Sampler: **ROBERT HARADON** Sample Location: **ROADWAY**

WIN/Town **019270.00 - KITTERY** Station: **538 + 01** Offset, ft: **9, RT**

Contractor: Resident: Dbfg, ft:

TEST RESULTS

Shear Bond (MeDOT)		
	Location, inch	Strength, psi
Specimen 1		
Specimen 2		

Chloride Content (T 260)	
Location, inch	Chloride Level, lb/yd³
2.2-2.5	**0.48**
6.5-7.0	**0.33**

Compressive Strength (T 22)		
	Location, inch	Strength, psi
Specimen 1	**2.5" - 6.5"**	**8550.00**
Specimen 2		

Rebar Corrosion (MeDOT)		
	Location, inch	Corrosion Level
Specimen 1		
Specimen 2		
Specimen 3		
Specimen 4		

Comments:

Final report. Offset from right lane line on GPR 6.0'. Right. Left lane core #22 quarter point (middle of lane).

AUTHORIZATION AND DISTRIBUTION

Reported by: **ROBERT HARADON** Date Reported: **1/21/2016**

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BRIDGE CORE TEST REPORT
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SAMPLE INFORMATION

Reference No.	Boring No./Sample No.	Sample Description	Sampled	Received
301084		**BRIDGE CORE**	**11/3/2015**	**11/4/2015**

Sample Type: **OTHER** Sampler: **ROBERT HARADON** Sample Location: **ROADWAY**

WIN/Town **019270.00 - KITTERY** Station: **551 + 73** Offset, ft: **6, RT**

Contractor: Resident: Dbfg, ft:

TEST RESULTS

Shear Bond (MeDOT)		
	Location, inch	Strength, psi
Specimen 1		
Specimen 2		

Chloride Content (T 260)	
Location, inch	Chloride Level, lb/yd³
2.0-2.5	**0.41**
6.25-6.75	**0.35**

Compressive Strength (T 22)		
	Location, inch	Strength, psi
Specimen 1	**2.5" - 6.25"**	**7510.00**
Specimen 2		

Rebar Corrosion (MeDOT)		
	Location, inch	Corrosion Level
Specimen 1		
Specimen 2		
Specimen 3		
Specimen 4		

Comments:

Final report. Offset from right lane line on GPR 8.0'. Right. Left lane core # 23 left wheel path.

AUTHORIZATION AND DISTRIBUTION

Reported by: **ROBERT HARADON** Date Reported: **1/21/2016**

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BRIDGE CORE TEST REPORT
Central Laboratory

SAMPLE INFORMATION

Reference No.	Boring No./Sample No.	Sample Description	Sampled	Received
301085		**BRIDGE CORE**	**11/3/2015**	**11/4/2015**

Sample Type: **OTHER** Sampler: **ROBERT HARADON** Sample Location: **ROADWAY**

WIN/Town **019270.00 - KITTERY** Station: **556 + 33** Offset, ft: **12, RT**

Contractor: Resident: Dbfg, ft:

TEST RESULTS

Shear Bond (MeDOT)		
	Location, inch	Strength, psi
Specimen 1		
Specimen 2		

Chloride Content (T 260)	
Location, inch	Chloride Level, lb/yd³
2.5-3.0	**0.36**
3.5-4.0	**0.29**
4.5-5.0	**0.25**

Compressive Strength (T 22)		
	Location, inch	Strength, psi
Specimen 1		
Specimen 2		

Rebar Corrosion (MeDOT)		
	Location, inch	Corrosion Level
Specimen 1		
Specimen 2		
Specimen 3		
Specimen 4		

Comments:

Final report. Offset from right lane line on GPR 4.0'. Right. Left lane core #24 right wheel path.
No compressive strength testing to be performed due to rebar in core.

AUTHORIZATION AND DISTRIBUTION

Reported by: **ROBERT HARADON** Date Reported: **1/21/2016**

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BRIDGE CORE TEST REPORT
Central Laboratory

SAMPLE INFORMATION

Reference No.	Boring No./Sample No.	Sample Description	Sampled	Received
301086		**BRIDGE CORE**	**11/3/2015**	**11/4/2015**

Sample Type: **OTHER** Sampler: **ROBERT HARADON** Sample Location: **ROADWAY**

WIN/Town **019270.00 - KITTERY** Station: **556 + 79** Offset, ft: **6, RT**

Contractor: Resident: Dbfg, ft:

TEST RESULTS

Shear Bond (MeDOT)		
	Location, inch	Strength, psi
Specimen 1		
Specimen 2		

Chloride Content (T 260)	
Location, inch	Chloride Level, lb/yd³
2.0-2.5	**0.72**
6.25-6.5	**0.25**

Compressive Strength (T 22)		
	Location, inch	Strength, psi
Specimen 1	**2.5" - 6.25"**	**6910.00**
Specimen 2		

Rebar Corrosion (MeDOT)		
	Location, inch	Corrosion Level
Specimen 1		
Specimen 2		
Specimen 3		
Specimen 4		

Comments:

Final report. Offset from right lane line on GPR 8.0'. Right. Left lane core # 25 left wheel path.

AUTHORIZATION AND DISTRIBUTION

Reported by: **ROBERT HARADON** Date Reported: **1/21/2016**

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BRIDGE CORE TEST REPORT
Central Laboratory

SAMPLE INFORMATION

Reference No.	Boring No./Sample No.	Sample Description	Sampled	Received
301087		BRIDGE CORE	11/17/2015	11/18/2015

Sample Type: **OTHER** Sampler: **ROBERT HARADON** Sample Location: **ROADWAY**

WIN/Town **019270.00 - KITTERY** Station: **561 + 9** Offset, ft: **43, LT**

Contractor: Resident: Dbfg, ft:

TEST RESULTS

Shear Bond (MeDOT)		
	Location, inch	Strength, psi
Specimen 1		
Specimen 2		

Chloride Content (T 260)	
Location, inch	Chloride Level, lb/yd³
2.5-3.0	0.81
7.0-7.5	0.31

Compressive Strength (T 22)		
	Location, inch	Strength, psi
Specimen 1	3" - 7"	8450.00
Specimen 2		

Rebar Corrosion (MeDOT)		
	Location, inch	Corrosion Level
Specimen 1		
Specimen 2		
Specimen 3		
Specimen 4		

Comments:

Final report. Bridge core # 26.

AUTHORIZATION AND DISTRIBUTION

Reported by: **ROBERT HARADON** Date Reported: **1/22/2016**

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BRIDGE CORE TEST REPORT
Central Laboratory

SAMPLE INFORMATION

Reference No.	Boring No./Sample No.	Sample Description	Sampled	Received
301088		BRIDGE CORE	11/17/2015	11/18/2015

Sample Type: **OTHER** Sampler: **ROBERT HARADON** Sample Location: **ROADWAY**

WIN/Town **019270.00 - KITTERY** Station: **553 + 49** Offset, ft: **43, LT**

Contractor: Resident: Dbfg, ft:

TEST RESULTS

Shear Bond (MeDOT)		
	Location, inch	Strength, psi
Specimen 1		
Specimen 2		

Chloride Content (T 260)	
Location, inch	Chloride Level, lb/yd³
1.75-2.25	0.33
5.5-6.0	0.3

Compressive Strength (T 22)		
	Location, inch	Strength, psi
Specimen 1	2.25" - 5.5"	5950.00
Specimen 2		

Rebar Corrosion (MeDOT)		
	Location, inch	Corrosion Level
Specimen 1		
Specimen 2		
Specimen 3		
Specimen 4		

Comments:

Final report. Bridge core #27.

AUTHORIZATION AND DISTRIBUTION

Reported by: **ROBERT HARADON** Date Reported: **1/22/2016**

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BRIDGE CORE TEST REPORT
Central Laboratory

SAMPLE INFORMATION

Reference No.	Boring No./Sample No.	Sample Description	Sampled	Received
301089		BRIDGE CORE	11/17/2015	11/17/2015

Sample Type: **OTHER** Sampler: **ROBERT HARADON** Sample Location:

WIN/Town **019270.00 - KITTERY** Station: **546 + 90** Offset, ft: **43, LT**

Contractor: Resident: Dbfg, ft:

TEST RESULTS

Shear Bond (MeDOT)		
	Location, inch	Strength, psi
Specimen 1		
Specimen 2		

Chloride Content (T 260)	
Location, inch	Chloride Level, lb/yd³
2.25-2.5	2.91
3.5-4.0	0.59
5.0-5.5	0.23
6.5-7.0	0.25

Compressive Strength (T 22)		
	Location, inch	Strength, psi
Specimen 1		
Specimen 2		

Rebar Corrosion (MeDOT)		
	Location, inch	Corrosion Level
Specimen 1		
Specimen 2		
Specimen 3		
Specimen 4		

Comments:

Final report. Bridge core #28.

AUTHORIZATION AND DISTRIBUTION

Reported by: **ROBERT HARADON** Date Reported: **1/22/2016**

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BRIDGE CORE TEST REPORT
Central Laboratory

SAMPLE INFORMATION

Reference No.	Boring No./Sample No.	Sample Description	Sampled	Received
301090		BRIDGE CORE	11/17/2015	11/18/2015

Sample Type: **OTHER** Sampler: **ROBERT HARADON** Sample Location: **ROADWAY**

WIN/Town **019270.00 - KITTERY** Station: **539 +10** Offset, ft: **45, LT**

Contractor: Resident: Dbfg, ft:

TEST RESULTS

Shear Bond (MeDOT)		
	Location, inch	Strength, psi
Specimen 1		
Specimen 2		

Chloride Content (T 260)	
Location, inch	Chloride Level, lb/yd³
2.25-2.75	0.42
6.25-6.75	0.38

Compressive Strength (T 22)		
	Location, inch	Strength, psi
Specimen 1	2.75" - 6.25"	8580.00
Specimen 2		

Rebar Corrosion (MeDOT)		
	Location, inch	Corrosion Level
Specimen 1		
Specimen 2		
Specimen 3		
Specimen 4		

Comments:
Final report. Bridge core #29.

AUTHORIZATION AND DISTRIBUTION

Reported by: **ROBERT HARADON** Date Reported: **1/22/2016**

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BRIDGE CORE TEST REPORT
Central Laboratory

SAMPLE INFORMATION

Reference No.	Boring No./Sample No.	Sample Description	Sampled	Received
301091		BRIDGE CORE	11/17/2015	11/18/2015

Sample Type: **OTHER** Sampler: **ROBERT HARADON** Sample Location: **ROADWAY**

WIN/Town **019270.00 - KITTERY** Station: **528 + 59** Offset, ft: **50, LT**

Contractor: Resident: Dbfg, ft:

TEST RESULTS

Shear Bond (MeDOT)

	Location, inch	Strength, psi
Specimen 1		
Specimen 2		

Chloride Content (T 260)

Location, inch	Chloride Level, lb/yd³
2.0-2.5	1.23
3.0-3.5	0.65
4.25-4.75	0.33
6.0-6.5	0.33

Compressive Strength (T 22)

	Location, inch	Strength, psi
Specimen 1		
Specimen 2		

Rebar Corrosion (MeDOT)

	Location, inch	Corrosion Level
Specimen 1		
Specimen 2		
Specimen 3		
Specimen 4		

Comments:

Final report. Bridge core # 30. No compressive strength testing to be performed due to rebar in core.

AUTHORIZATION AND DISTRIBUTION

Reported by: **ROBERT HARADON** Date Reported: **1/22/2016**

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BRIDGE CORE TEST REPORT
Central Laboratory

SAMPLE INFORMATION

Reference No.	Boring No./Sample No.	Sample Description	Sampled	Received
301092		BRIDGE CORE	11/17/2015	11/18/2015

Sample Type: **OTHER** Sampler: **ROBERT HARADON** Sample Location: **ROADWAY**

WIN/Town **019270.00 - KITTERY** Station: **525 + 04** Offset, ft: **50,**

Contractor: Resident: Dbfg, ft:

TEST RESULTS

Shear Bond (MeDOT)		
	Location, inch	Strength, psi
Specimen 1		
Specimen 2		

Chloride Content (T 260)	
Location, inch	Chloride Level, lb/yd³
2.75-3.25	1.83
3.75-4.25	2.35
4.75-5.25	3.62

Compressive Strength (T 22)		
	Location, inch	Strength, psi
Specimen 1		
Specimen 2		

Rebar Corrosion (MeDOT)		
	Location, inch	Corrosion Level
Specimen 1		
Specimen 2		
Specimen 3		
Specimen 4		

Comments:

Final report. Bridge core #31. Compressive testing could not be performed due to the core having a crack running through the diameter.

AUTHORIZATION AND DISTRIBUTION

Reported by: **ROBERT HARADON** Date Reported: **1/22/2016**

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BRIDGE CORE TEST REPORT
Central Laboratory

SAMPLE INFORMATION

Reference No.	Boring No./Sample No.	Sample Description	Sampled	Received
301093		BRIDGE CORE	11/17/2015	11/18/2015

Sample Type: **OTHER** Sampler: **ROBERT HARADON** Sample Location: **ROADWAY**

WIN/Town **019270.00 - KITTERY** Station: **564 + 49** Offset, ft: **36, LT**

Contractor: Resident: Dbfg, ft:

TEST RESULTS

Shear Bond (MeDOT)		
	Location, inch	Strength, psi
Specimen 1		
Specimen 2		

Chloride Content (T 260)	
Location, inch	Chloride Level, lb/yd³
1.75-2.25	0.32
6.5-7.0	0.29

Compressive Strength (T 22)		
	Location, inch	Strength, psi
Specimen 1	2.25" - 6.5"	7910.00
Specimen 2		

Rebar Corrosion (MeDOT)		
	Location, inch	Corrosion Level
Specimen 1		
Specimen 2		
Specimen 3		
Specimen 4		

Comments:

Final report. Bridge core #32.

AUTHORIZATION AND DISTRIBUTION

Reported by: **ROBERT HARADON** Date Reported: **1/22/2016**

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BRIDGE CORE TEST REPORT
Central Laboratory

SAMPLE INFORMATION

Reference No.	Boring No./Sample No.	Sample Description	Sampled	Received
301094		BRIDGE CORE	11/17/2015	11/18/2015

Sample Type: **OTHER** Sampler: **ROBERT HARADON** Sample Location: **ROADWAY**

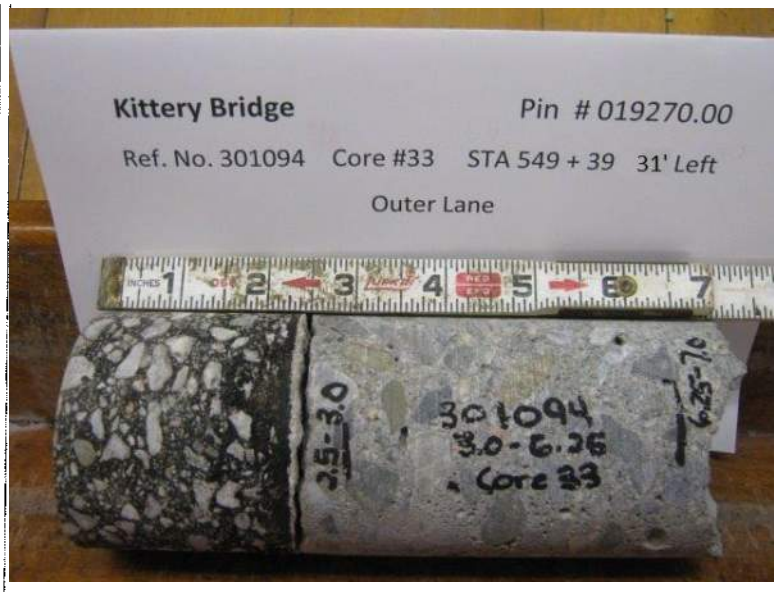
WIN/Town **019270.00 - KITTERY** Station: **549 + 39** Offset, ft: **31, LT**

Contractor: Resident: Dbfg, ft:

TEST RESULTS

Shear Bond (MeDOT)		
	Location, inch	Strength, psi
Specimen 1		
Specimen 2		

Chloride Content (T 260)	
Location, inch	Chloride Level, lb/yd³
2.5-3.0	**0.45**
6.25-7.0	**0.32**



Compressive Strength (T 22)		
	Location, inch	Strength, psi
Specimen 1	**3.0" - 6.25"**	**6210.00**
Specimen 2		

Rebar Corrosion (MeDOT)		
	Location, inch	Corrosion Level
Specimen 1		
Specimen 2		
Specimen 3		
Specimen 4		

Commants:

Final report. Bridge core # 33.

AUTHORIZATION AND DISTRIBUTION

Reported by: **ROBERT HARADON** Date Reported: **1/22/2016**

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BRIDGE CORE TEST REPORT
Central Laboratory

SAMPLE INFORMATION

Reference No.	Boring No./Sample No.	Sample Description	Sampled	Received
301095		BRIDGE CORE	11/17/2015	11/18/2015

Sample Type: **OTHER** Sampler: **ROBERT HARADON** Sample Location: **ROADWAY**

WIN/Town **019270.00 - KITTERY** Station: **548 + 31** Offset, ft: **31, LT**

Contractor: Resident: Dbfg, ft:

TEST RESULTS

Shear Bond (MeDOT)		
	Location, inch	Strength, psi
Specimen 1		
Specimen 2		

Chloride Content (T 260)	
Location, inch	Chloride Level, lb/yd³
3.5-4.0	**0.35**
7.0-7.5	**0.3**

Compressive Strength (T 22)		
	Location, inch	Strength, psi
Specimen 1	**4.0" - 7.0"**	**7040.00**
Specimen 2		

Rebar Corrosion (MeDOT)		
	Location, inch	Corrosion Level
Specimen 1		
Specimen 2		
Specimen 3		
Specimen 4		

Comments:

Final report. Bridge core #34.

AUTHORIZATION AND DISTRIBUTION

Reported by: **ROBERT HARADON** Date Reported: **1/22/2016**

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BRIDGE CORE TEST REPORT
Central Laboratory

SAMPLE INFORMATION

Reference No.	Boring No./Sample No.	Sample Description	Sampled	Received
301096		BRIDGE CORE	11/17/2015	11/18/2015

Sample Type: **OTHER** Sampler: **ROBERT HARADON** Sample Location: **ROADWAY**

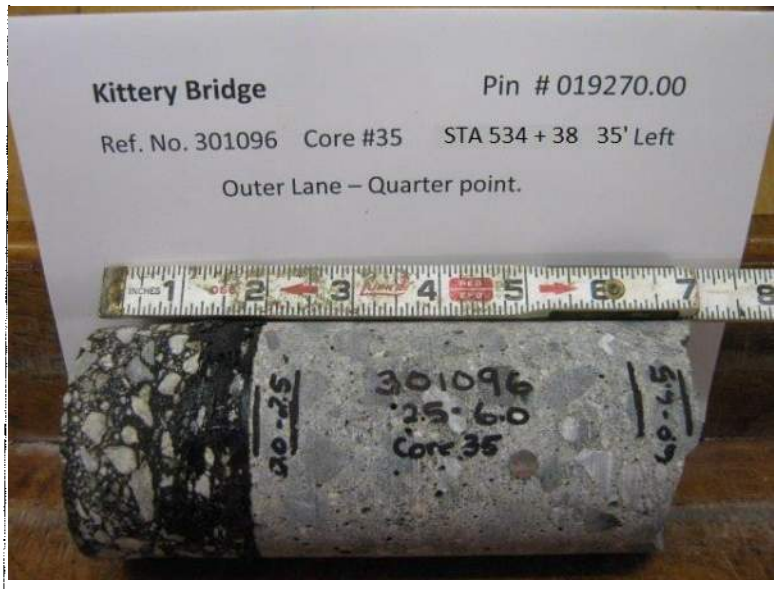
WIN/Town **019270.00 - KITTERY** Station: **534 + 38** Offset, ft: **35, LT**

Contractor: Resident: Dbfg, ft:

TEST RESULTS

Shear Bond (MeDOT)		
	Location, inch	Strength, psi
Specimen 1		
Specimen 2		

Chloride Content (T 260)	
Location, inch	Chloride Level, lb/yd³
2.0-2.5	**0.91**
6.0-6.5	**0.36**



Compressive Strength (T 22)		
	Location, inch	Strength, psi
Specimen 1	**2.5" - 6.0"**	**9990.00**
Specimen 2		

Rebar Corrosion (MeDOT)		
	Location, inch	Corrosion Level
Specimen 1		
Specimen 2		
Specimen 3		
Specimen 4		

Comments:
Final report. Bridge core #35.

AUTHORIZATION AND DISTRIBUTION

Reported by: **ROBERT HARADON** Date Reported: **1/22/2016**

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BRIDGE CORE TEST REPORT
Central Laboratory

SAMPLE INFORMATION

Reference No.	Boring No./Sample No.	Sample Description	Sampled	Received
301097		BRIDGE CORE	11/17/2015	11/18/2015

Sample Type: **OTHER** Sampler: **ROBERT HARADON** Sample Location: **ROADWAY**

WIN/Town **019270.00 - KITTERY** Station: **528 + 49** Offset, ft: **38, LT**

Contractor: Resident: Dbfg, ft:

TEST RESULTS

Shear Bond (MeDOT)		
	Location, inch	Strength, psi
Specimen 1		
Specimen 2		

Chloride Content (T 260)	
Location, inch	Chloride Level, lb/yd³
2.0-2.5	1.05
6.75-7.25	0.32

Compressive Strength (T 22)		
	Location, inch	Strength, psi
Specimen 1	2.5" - 6.75"	11810.00
Specimen 2		

Rebar Corrosion (MeDOT)		
	Location, inch	Corrosion Level
Specimen 1		
Specimen 2		
Specimen 3		
Specimen 4		

Comments:

Final report. Bridge core #36.

AUTHORIZATION AND DISTRIBUTION

Reported by: **ROBERT HARADON** Date Reported: **1/22/2016**

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BRIDGE CORE TEST REPORT
Central Laboratory

SAMPLE INFORMATION

Reference No.	Boring No./Sample No.	Sample Description	Sampled	Received
301098		BRIDGE CORE	11/17/2015	11/18/2015

Sample Type: **OTHER** Sampler: **ROBERT HARADON** Sample Location: **ROADWAY**

WIN/Town **019270.00 - KITTERY** Station: **525 + 69** Offset, ft: **44, LT**

Contractor: Resident: Dbfg, ft:

TEST RESULTS

Shear Bond (MeDOT)		
	Location, inch	Strength, psi
Specimen 1		
Specimen 2		

Chloride Content (T 260)	
Location, inch	Chloride Level, lb/yd³
2.0-3.0	0.57
3.0-4.0	0.32
4.0-4.75	0.34

Compressive Strength (T 22)		
	Location, inch	Strength, psi
Specimen 1		
Specimen 2		

Rebar Corrosion (MeDOT)		
	Location, inch	Corrosion Level
Specimen 1		
Specimen 2		
Specimen 3		
Specimen 4		

Comments:

Final report. Bridge core #37. Compressive strength testing could not be performed because the drilled core was recovered in pieces.

AUTHORIZATION AND DISTRIBUTION

Reported by: **ROBERT HARADON** Date Reported: **1/22/2016**

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BRIDGE CORE TEST REPORT
Central Laboratory

SAMPLE INFORMATION

Reference No.	Boring No./Sample No.	Sample Description	Sampled	Received
301099		**BRIDGE CORE**	**11/17/2015**	**11/18/2015**

Sample Type: **OTHER** Sampler: **ROBERT HARADON** Sample Location: **ROADWAY**

WIN/Town **019270.00 - KITTERY** Station: **556 + 24** Offset, ft: **21, LT**

Contractor: Resident: Dbfg, ft:

TEST RESULTS

Shear Bond (MeDOT)		
	Location, inch	Strength, psi
Specimen 1		
Specimen 2		

Chloride Content (T 260)	
Location, inch	Chloride Level, lb/yd³
2.25-2.75	**0.47**
6.0-6.5	**0.34**

Compressive Strength (T 22)		
	Location, inch	Strength, psi
Specimen 1	**2.75" - 6.0"**	**7880.00**
Specimen 2		

Rebar Corrosion (MeDOT)		
	Location, inch	Corrosion Level
Specimen 1		
Specimen 2		
Specimen 3		
Specimen 4		

Comments:

Final report. Bridge core #38.

AUTHORIZATION AND DISTRIBUTION

Reported by: **ROBERT HARADON** Date Reported: **1/22/2016**

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BRIDGE CORE TEST REPORT
Central Laboratory

SAMPLE INFORMATION

Reference No.	Boring No./Sample No.	Sample Description	Sampled	Received
301100		**BRIDGE CORE**	**11/17/2015**	**11/18/2015**

Sample Type: **OTHER** Sampler: **ROBERT HARADON** Sample Location: **ROADWAY**

WIN/Town **019270.00 - KITTERY** Station: **553 + 17** Offset, ft: **21, LT**

Contractor: Resident: Dbfg, ft:

TEST RESULTS

Shear Bond (MeDOT)		
	Location, inch	Strength, psi
Specimen 1		
Specimen 2		

Chloride Content (T 260)	
Location, inch	Chloride Level, lb/yd³
2.5-3.0	**0.32**
3.5-4.0	**0.35**

Compressive Strength (T 22)		
	Location, inch	Strength, psi
Specimen 1		
Specimen 2		

Rebar Corrosion (MeDOT)		
	Location, inch	Corrosion Level
Specimen 1		
Specimen 2		
Specimen 3		
Specimen 4		

Comments:

Final report. Bridge core #39. Core sample was to short to perform compressive strength testing.

AUTHORIZATION AND DISTRIBUTION

Reported by: **ROBERT HARADON** Date Reported: **1/22/2016**

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BRIDGE CORE TEST REPORT
Central Laboratory

SAMPLE INFORMATION

Reference No.	Boring No./Sample No.	Sample Description	Sampled	Received
301226		**BRIDGE CORE**	**11/17/2015**	**11/18/2015**

Sample Type: **OTHER** Sampler: **ROBERT HARADON** Sample Location: **ROADWAY**

WIN/Town **019270.00 - KITTERY** Station: **540 + 04** Offset, ft: **23, LT**

Contractor: Resident: Dbfg, ft:

TEST RESULTS

Shear Bond (MeDOT)		
	Location, inch	Strength, psi
Specimen 1		
Specimen 2		

Chloride Content (T 260)	
Location, inch	Chloride Level, lb/yd³
1.75-2.25	**0.46**
6.25-6.75	**0.34**

Compressive Strength (T 22)		
	Location, inch	Strength, psi
Specimen 1	**2.25" - 6.25"**	**10180.00**
Specimen 2		

Rebar Corrosion (MeDOT)		
	Location, inch	Corrosion Level
Specimen 1		
Specimen 2		
Specimen 3		
Specimen 4		

Comments:

Final report. Bridge core #40.

AUTHORIZATION AND DISTRIBUTION

Reported by: **ROBERT HARADON** Date Reported: **1/22/2016**

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BRIDGE CORE TEST REPORT
Central Laboratory

SAMPLE INFORMATION

Reference No.	Boring No./Sample No.	Sample Description	Sampled	Received
301227		**BRIDGE CORE**	**11/17/2015**	**11/18/2015**

Sample Type: **OTHER** Sampler: **ROBERT HARADON** Sample Location: **ROADWAY**

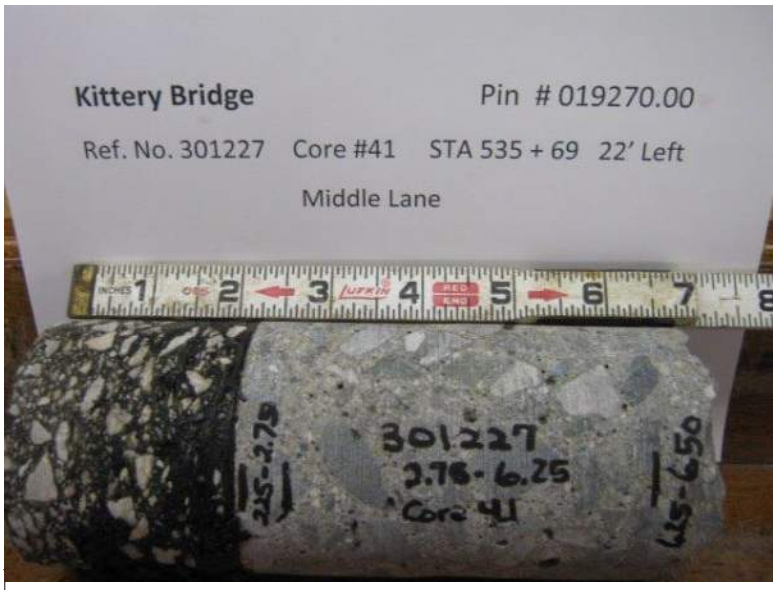
WIN/Town **019270.00 - KITTERY** Station: **535 + 69** Offset, ft: **22, LT**

Contractor: Resident: Dbfg, ft:

TEST RESULTS

Shear Bond (MeDOT)		
	Location, inch	Strength, psi
Specimen 1		
Specimen 2		

Chloride Content (T 260)	
Location, inch	Chloride Level, lb/yd³
2.25-2.75	**0.42**
6.25-6.5	**0.32**



Compressive Strength (T 22)		
	Location, inch	Strength, psi
Specimen 1	**2.75" - 6.25"**	**9880.00**
Specimen 2		

Rebar Corrosion (MeDOT)		
	Location, inch	Corrosion Level
Specimen 1		
Specimen 2		
Specimen 3		
Specimen 4		

Comments:

Final report. Bridge core #41.

AUTHORIZATION AND DISTRIBUTION

Reported by: **ROBERT HARADON** Date Reported: **1/22/2016**

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BRIDGE CORE TEST REPORT
Central Laboratory

SAMPLE INFORMATION

Reference No.	Boring No./Sample No.	Sample Description	Sampled	Received
301228		**BRIDGE CORE**	**11/17/2015**	**11/18/2015**

Sample Type: **OTHER** Sampler: **ROBERT HARADON** Sample Location: **ROADWAY**

WIN/Town **019270.00 - KITTERY** Station: **528 + 36** Offset, ft: **26, LT**

Contractor: Resident: Dbfg, ft:

TEST RESULTS

Shear Bond (MeDOT)		
	Location, inch	Strength, psi
Specimen 1		
Specimen 2		

Chloride Content (T 260)	
Location, inch	Chloride Level, lb/yd³
2.25-2.5	**0.43**
6.0-6.5	**0.29**

Compressive Strength (T 22)		
	Location, inch	Strength, psi
Specimen 1	**2.5" - 6.0"**	**10170.00**
Specimen 2		

Rebar Corrosion (MeDOT)		
	Location, inch	Corrosion Level
Specimen 1		
Specimen 2		
Specimen 3		
Specimen 4		

Comments:

Final report. Bridge core #42.

AUTHORIZATION AND DISTRIBUTION

Reported by: **ROBERT HARADON** Date Reported: **1/22/2016**

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BRIDGE CORE TEST REPORT
Central Laboratory

SAMPLE INFORMATION

Reference No.	Boring No./Sample No.	Sample Description	Sampled	Received
301229		**BRIDGE CORE**	**11/17/2015**	**11/18/2015**

Sample Type: **OTHER** Sampler: **ROBERT HARADON** Sample Location: **ROADWAY**

WIN/Town **019270.00 - KITTERY** Station: **524 + 63** Offset, ft: **27, LT**

Contractor: Resident: Dbfg, ft:

TEST RESULTS

Shear Bond (MeDOT)		
	Location, inch	Strength, psi
Specimen 1		
Specimen 2		

Chloride Content (T 260)	
Location, inch	Chloride Level, lb/yd³
2.5-3.0	**0.34**
6.75-7.25	**0.25**

Compressive Strength (T 22)		
	Location, inch	Strength, psi
Specimen 1	**3.0" - 6.75"**	**8990.00**
Specimen 2		

Rebar Corrosion (MeDOT)		
	Location, inch	Corrosion Level
Specimen 1		
Specimen 2		
Specimen 3		
Specimen 4		

Comments:

Final report. Bridge core #43.

AUTHORIZATION AND DISTRIBUTION

Reported by: **ROBERT HARADON** Date Reported: **1/22/2016**

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BRIDGE CORE TEST REPORT
Central Laboratory

SAMPLE INFORMATION

Reference No.	Boring No./Sample No.	Sample Description	Sampled	Received
301230		**BRIDGE CORE**	**11/17/2015**	**11/18/2015**

Sample Type: **OTHER** Sampler: **ROBERT HARADON** Sample Location: **ROADWAY**

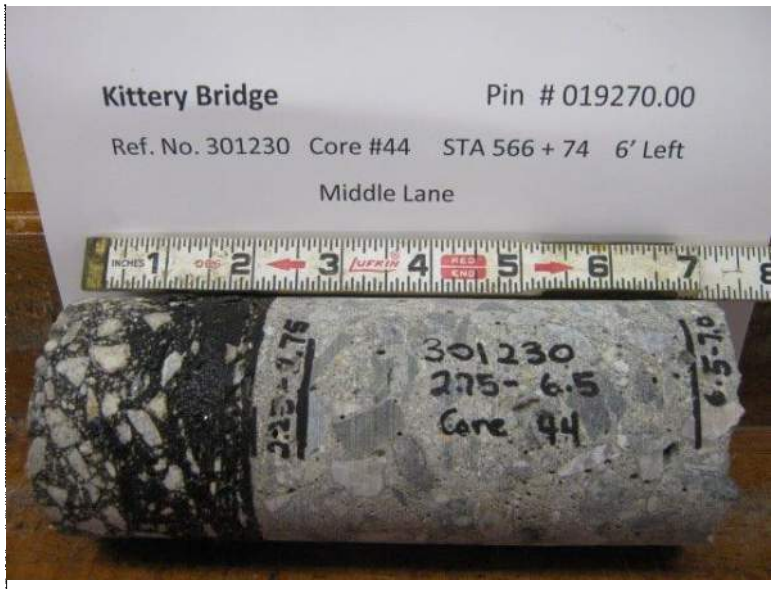
WIN/Town **019270.00 - KITTERY** Station: **566 + 74** Offset, ft: **6, LT**

Contractor: Resident: Dbfg, ft:

TEST RESULTS

Shear Bond (MeDOT)		
	Location, inch	Strength, psi
Specimen 1		
Specimen 2		

Chloride Content (T 260)	
Location, inch	Chloride Level, lb/yd³
2.25-2.75	**0.39**
6.5-7.0	**0.33**



Compressive Strength (T 22)		
	Location, inch	Strength, psi
Specimen 1	**2.75" - 6.5"**	**8680.00**
Specimen 2		

Rebar Corrosion (MeDOT)		
	Location, inch	Corrosion Level
Specimen 1		
Specimen 2		
Specimen 3		
Specimen 4		

Comments:

Final report. Bridge core #44.

AUTHORIZATION AND DISTRIBUTION

Reported by: **ROBERT HARADON** Date Reported: **1/22/2016**

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BRIDGE CORE TEST REPORT
Central Laboratory

SAMPLE INFORMATION

Reference No.	Boring No./Sample No.	Sample Description	Sampled	Received
301231		BRIDGE CORE	11/17/2015	11/18/2015

Sample Type: **OTHER** Sampler: **ROBERT HARADON** Sample Location: **ROADWAY**

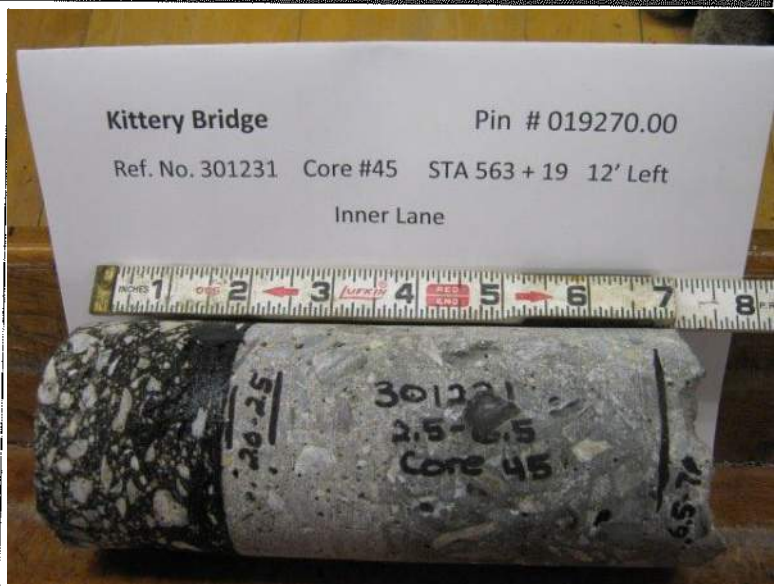
WIN/Town **019270.00 - KITTERY** Station: **563 + 19** Offset, ft: **12, LT**

Contractor: Resident: Dbfg, ft:

TEST RESULTS

Shear Bond (MeDOT)		
	Location, inch	Strength, psi
Specimen 1		
Specimen 2		

Chloride Content (T 260)	
Location, inch	Chloride Level, lb/yd³
2.0-2.5	**0.31**
6.5-7.0	**0.24**



Compressive Strength (T 22)		
	Location, inch	Strength, psi
Specimen 1	**2.5" - 6.5"**	**8590.00**
Specimen 2		

Rebar Corrosion (MeDOT)		
	Location, inch	Corrosion Level
Specimen 1		
Specimen 2		
Specimen 3		
Specimen 4		

Comments:

Final report. Bridge core #45.

AUTHORIZATION AND DISTRIBUTION

Reported by: **ROBERT HARADON** Date Reported: **1/22/2016**

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BRIDGE CORE TEST REPORT
Central Laboratory

SAMPLE INFORMATION

Reference No.	Boring No./Sample No.	Sample Description	Sampled	Received
301232		BRIDGE CORE	11/17/2015	11/18/2015

Sample Type: **OTHER** Sampler: **ROBERT HARADON** Sample Location: **ROADWAY**

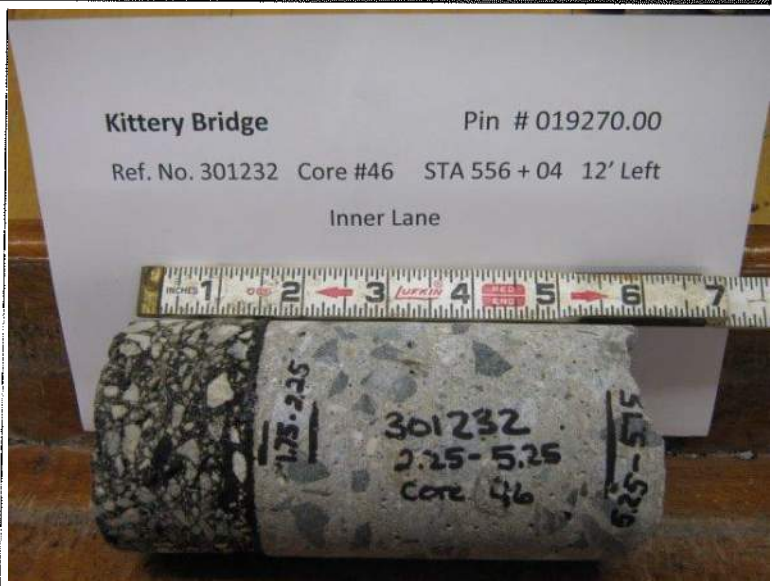
WIN/Town **019270.00 - KITTERY** Station: **556 + 04** Offset, ft: **12, LT**

Contractor: Resident: Dbfg, ft:

TEST RESULTS

Shear Bond (MeDOT)		
	Location, inch	Strength, psi
Specimen 1		
Specimen 2		

Chloride Content (T 260)	
Location, inch	Chloride Level, lb/yd³
1.75-2.25	0.45
5.25-5.75	0.33



Compressive Strength (T 22)		
	Location, inch	Strength, psi
Specimen 1	2.25" - 5.25"	7920.00
Specimen 2		

Rebar Corrosion (MeDOT)		
	Location, inch	Corrosion Level
Specimen 1		
Specimen 2		
Specimen 3		
Specimen 4		

Comments:

Final report. Bridge core #46.

AUTHORIZATION AND DISTRIBUTION

Reported by: **ROBERT HARADON** Date Reported: **1/22/2016**

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BRIDGE CORE TEST REPORT
Central Laboratory

SAMPLE INFORMATION

Reference No.	Boring No./Sample No.	Sample Description	Sampled	Received
301233		BRIDGE CORE	11/17/2015	11/18/2015

Sample Type: **OTHER** Sampler: **ROBERT HARADON** Sample Location: **ROADWAY**

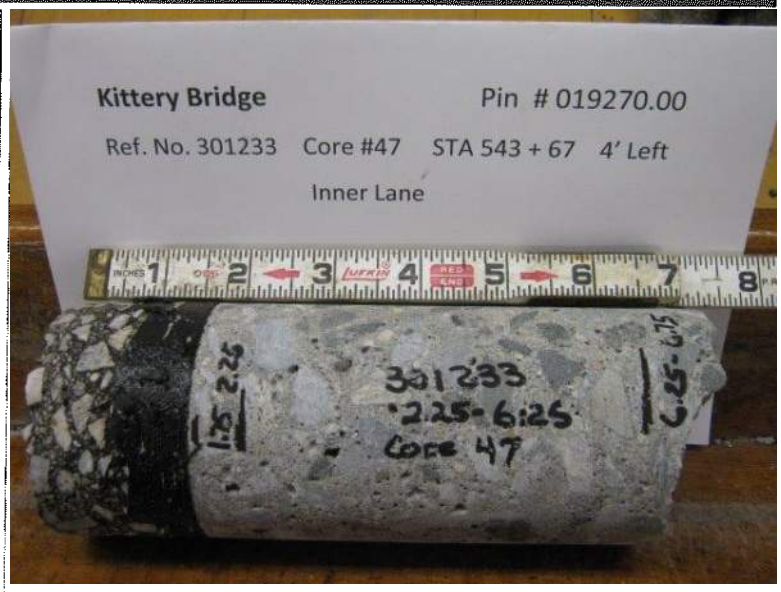
WIN/Town **019270.00 - KITTERY** Station: **543 + 67** Offset, ft: **4, LT**

Contractor: Resident: Dbfg, ft:

TEST RESULTS

Shear Bond (MeDOT)		
	Location, inch	Strength, psi
Specimen 1		
Specimen 2		

Chloride Content (T 260)	
Location, inch	Chloride Level, lb/yd³
1.75-2.25	**0.39**
6.25-6.75	**0.32**



Compressive Strength (T 22)		
	Location, inch	Strength, psi
Specimen 1	**2.25" - 6.25"**	**7040.00**
Specimen 2		

Rebar Corrosion (MeDOT)		
	Location, inch	Corrosion Level
Specimen 1		
Specimen 2		
Specimen 3		
Specimen 4		

Comments:

Final report. Bridge core #47.

AUTHORIZATION AND DISTRIBUTION

Reported by: **ROBERT HARADON** Date Reported: **1/22/2016**

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BRIDGE CORE TEST REPORT
Central Laboratory

SAMPLE INFORMATION

Reference No.	Boring No./Sample No.	Sample Description	Sampled	Received
301234		BRIDGE CORE	11/17/2015	11/18/2015

Sample Type: **OTHER** Sampler: **ROBERT HARADON** Sample Location: **ROADWAY**

WIN/Town **019270.00 - KITTERY** Station: **534 + 90** Offset, ft: **8, LT**

Contractor: Resident: Dbfg, ft:

TEST RESULTS

Shear Bond (MeDOT)		
	Location, inch	Strength, psi
Specimen 1		
Specimen 2		

Chloride Content (T 260)	
Location, inch	Chloride Level, lb/yd³
2.25-2.75	**0.37**
6.5-7.0	**0.41**

Compressive Strength (T 22)		
	Location, inch	Strength, psi
Specimen 1	**2.75" - 6.5"**	**10110.00**
Specimen 2		

Rebar Corrosion (MeDOT)		
	Location, inch	Corrosion Level
Specimen 1		
Specimen 2		
Specimen 3		
Specimen 4		

Comments:

Final report. Bridge core # 48.

AUTHORIZATION AND DISTRIBUTION

Reported by: **ROBERT HARADON** Date Reported: **1/22/2016**

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BRIDGE CORE TEST REPORT
Central Laboratory

SAMPLE INFORMATION

Reference No.	Boring No./Sample No.	Sample Description	Sampled	Received
301235		BRIDGE CORE	11/17/2015	11/18/2015

Sample Type: **OTHER** Sampler: **ROBERT HARADON** Sample Location: **ROADWAY**

WIN/Town **019270.00 - KITTERY** Station: **529 + 14** Offset, ft: **19, LT**

Contractor: Resident: Dbfg, ft:

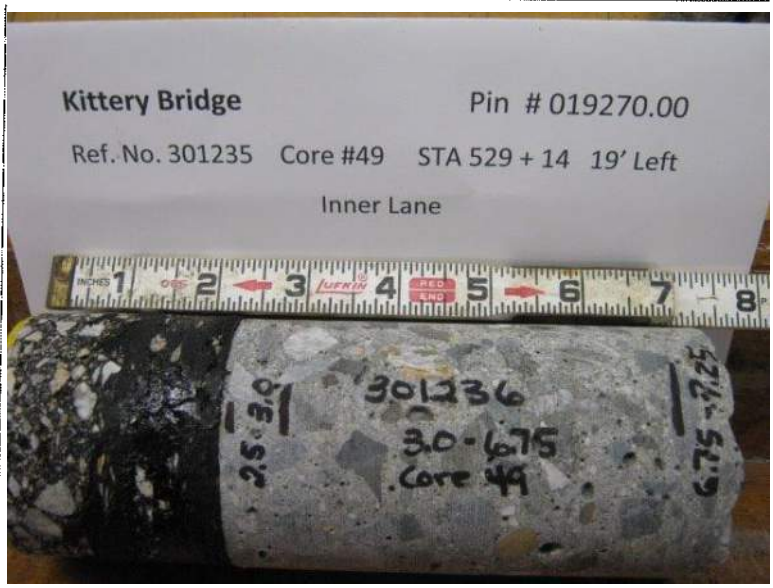
TEST RESULTS

Shear Bond (MeDOT)		
	Location, inch	Strength, psi
Specimen 1		
Specimen 2		

Chloride Content (T 260)	
Location, inch	Chloride Level, lb/yd³

Compressive Strength (T 22)		
	Location, inch	Strength, psi
Specimen 1	**3.0" - 6.75"**	**11340.00**
Specimen 2		

Rebar Corrosion (MeDOT)		
	Location, inch	Corrosion Level
Specimen 1		
Specimen 2		
Specimen 3		
Specimen 4		



Comments:

Final report. Bridge core #49.

AUTHORIZATION AND DISTRIBUTION

Reported by: **ROBERT HARADON** Date Reported: **1/22/2016**

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BRIDGE CORE TEST REPORT
Central Laboratory

SAMPLE INFORMATION

Reference No.	Boring No./Sample No.	Sample Description	Sampled	Received
301236		BRIDGE CORE	11/17/2015	11/18/2015

Sample Type: **OTHER** Sampler: **ROBERT HARADON** Sample Location: **ROADWAY**

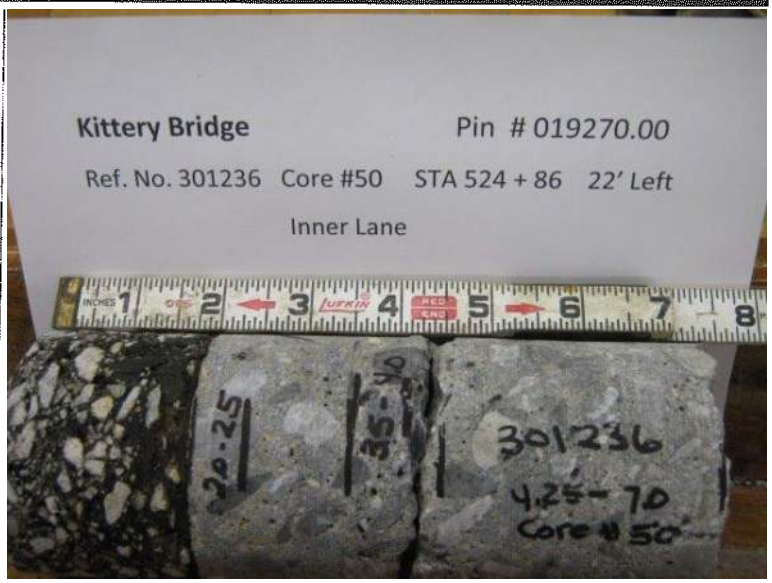
WIN/Town **019270.00 - KITTERY** Station: **524 + 86** Offset, ft: **22, LT**

Contractor: Resident: Dbfg, ft:

TEST RESULTS

Shear Bond (MeDOT)		
	Location, inch	Strength, psi
Specimen 1		
Specimen 2		

Chloride Content (T 260)	
Location, inch	Chloride Level, lb/yd³
2.0-2.5	**1.69**
2.5-3.0	**0.68**
3.5-4.0	**1.27**
6.75-7.25	**0.38**



Compressive Strength (T 22)		
	Location, inch	Strength, psi
Specimen 1	**4.25" - 7.0"**	**9620.00**
Specimen 2		

Rebar Corrosion (MeDOT)		
	Location, inch	Corrosion Level
Specimen 1		
Specimen 2		
Specimen 3		
Specimen 4		

Comments:

Final report. Bridge core #50.

AUTHORIZATION AND DISTRIBUTION

Reported by: **ROBERT HARADON** Date Reported: **1/22/2016**

Paper Copy: Structure File *Electronic: Customer —*

19270.00 I-95 Kittery/Portsmouth Bridge
Ground Penetrating Radar (GPR) Summary

Introduction

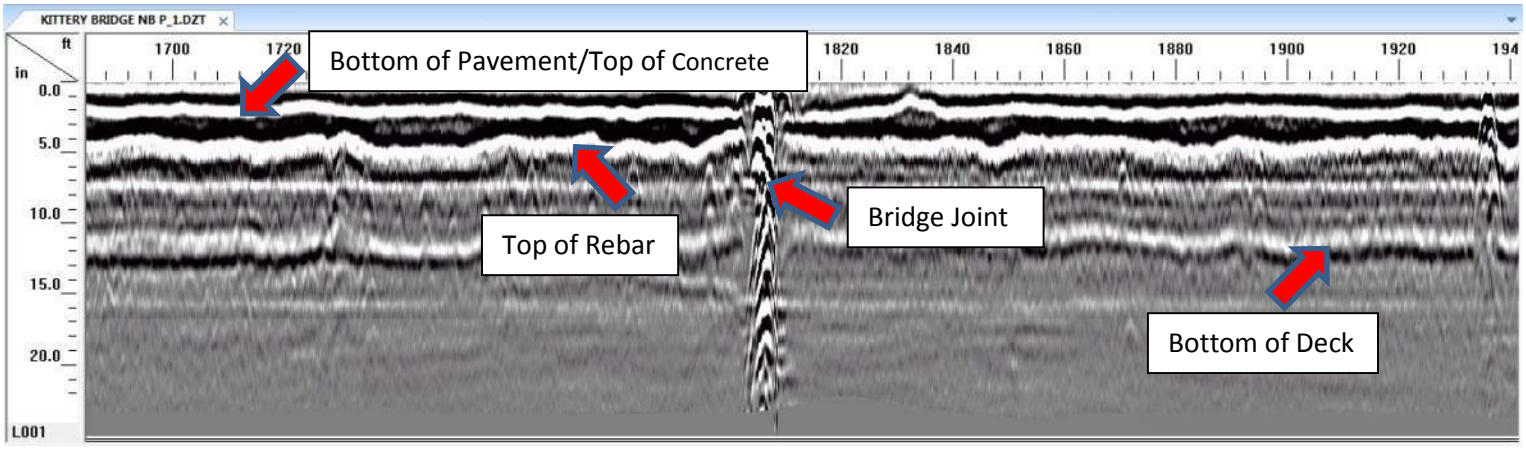
Ground Penetrating Radar data was collected on the I-95 Kittery/Portsmouth bridge using two techniques. This was the Departments first attempt to utilize this testing procedure. Department personnel worked closely with Roger Roberts from Geophysical Survey Systems, Inc. (GSSI) to assure GPR data was collected and evaluated properly. GSSI is the manufacturer of the Departments GPR equipment. The first process was completed utilizing the Departments air launched GPR antennas in an effort to provide an overall evaluation of the condition of the bridge deck and identify specific areas of the deck for coring. The second technique was completed using the Departments ground coupled 1600 megahertz antenna to provide a more detailed evaluation near the coring locations. Each of these techniques attempts to measure the amplitude of the top layer of reinforcing steel. A more detailed explanation of the data collection methodology is explained below.

2.0 Gigahertz Air Launched Horn Antennas

1600 Megahertz Ground Coupled Antenna

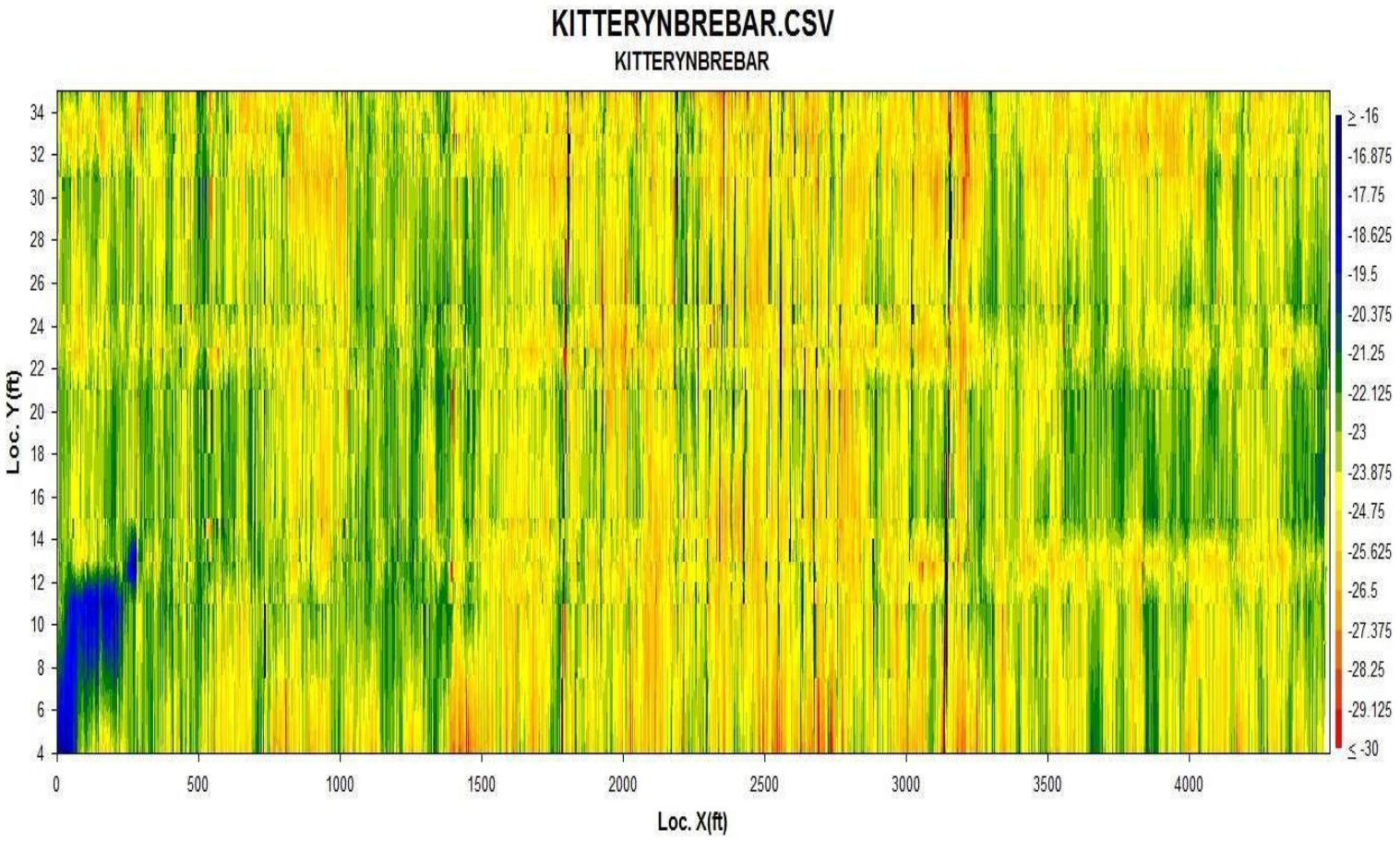
Methodology

As mentioned above, the first phase of this evaluation was to collect air launched GPR data to evaluate the overall condition of the bridge deck. Data was collected longitudinally, approximately every 3 feet across the deck beginning in the shoulder. Data was collected using a rate of 5 scans per foot, which allowed a highway speed of approximately 50 miles per hour and no traffic control was necessary to complete this collection. Data was then evaluated using GSSI's analysis software. A sample of the processed data is shown below.



Processed GPR data from 2.0 Gigahertz Antenna

After the data processing was complete, comma delimited files (.csv) were created and the rebar amplitude values were plotted using Dplot. Color coding was then created based on the rebar amplitude range. This process was completed for both the North and South bound lanes. A copy of the plotted results is shown below.



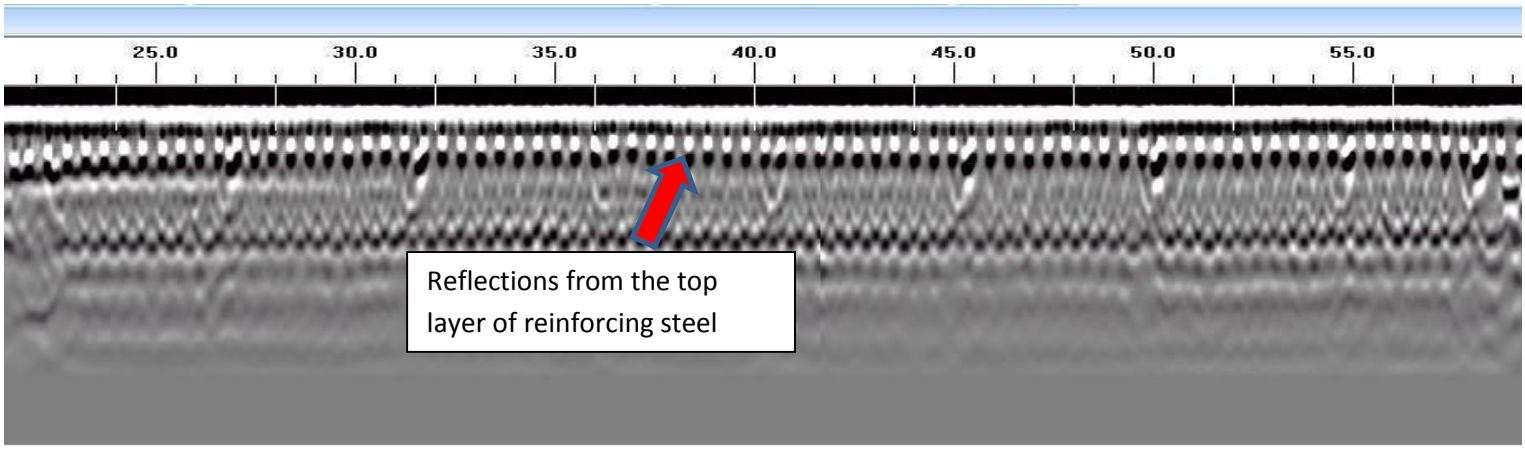
I-95 Kittery North Bound Bridge Deck

The plotted results were then used to select core locations based on the variability of the rebar amplitudes. Core locations were initially categorized as Good, Fair and Poor. Approximately eight core locations were selected for each of the three categories in an effort to evenly represent the deck conditions. 25 core locations were selected for both the north and south bound decks.

The second phase of GPR data collection was completed in conjunction with the bridge deck coring, using the Departments 1600 Megahertz antenna. The scanning rate used for this application was 24 scans per foot. Data was collected continuously in the direction of traffic starting 50 feet before the actual core location and ending 50 feet after the location. Five passes were completed using a two foot transverse spacing between each pass. This data was also analyzed using GSSI's software and amplitudes were recorded. A sample of the processed 1600 data is shown below.

Amplitudes from the air launched and 1600 ground coupled antenna were compared and with the exception of one core location, the 1600 antenna amplitudes were consistently lower than the air launched antenna amplitudes by an average of 5.4 decibals (dB). These differences are to be expected because of the different data collection techniques and different antenna types. The amplitudes were taken from the approximate location of the deck cores.

A total of 41 compressive strength results and 49 chloride results were developed from the 50 cores taken. These results were reported by the Departments Concrete Structures Laboratory.



Processed GPR data from the 1600 Ground Coupled antenna

Results/Conclusions

Amplitude values from the 1600 megahertz and air launched horn antenna were compared to the compressive strength and chloride results and showed very little correlation. With over 93 percent of the amplitude values falling within a very tight range between -18 and -26, a strong correlation was not anticipated. Considering this tight amplitude range and virtually all of the compressive strength and chloride results falling within acceptable levels, it appears there is very little deterioration in either deck. With no significant anomalies in the amplitude values from the 1600 ground coupled antenna, conditions around each core location are believed to be similar to the compressive strength and chloride results found at each corresponding location.

In addition to being utilized for core locating and condition analysis, air launched horn antenna data provided a very clear layer representing the HMA pavement and concrete deck surface interface. Average pavement thickness results were developed at 50 foot intervals for each lane and the shoulder of both the north and south bound decks. These results are attached below.

Overall, Ground Penetrating Radar technology proved to be a good tool for evaluating bridge decks of this size, particularly in providing a starting point for core location selection. With the test results indicating the decks are in good condition and the possibility that any repair would include milling the HMA pavement, the pavement thicknesses provided should also prove very valuable.

Prepared by :

Stephen Colson – Senior Technician

Maine Dept of Transportation - Materials Testing and Exploration

MaineDOT

I95 Kittery-Portsmouth Bridge (North Bound)

Average Pavement Depths

	Inside Lane			Middle Lane			Outside			
Distance	LWP	QP	RWP	LWP	QP	RWP	LWP	QP	RWP	SHOULDER
524+26 to 524+76	1.47	1.78	1.52	1.76	1.86	1.49	2.11	1.88	1.97	1.91
524+76 to 525+26	1.68	2.07	1.78	1.82	2.00	1.55	2.02	1.84	1.87	1.90
525+26 to 525+76	1.67	2.08	1.75	1.63	1.81	1.52	2.28	2.08	1.98	1.82
525+76 to 526+26	1.66	2.02	1.71	1.44	1.69	1.46	2.29	1.99	1.87	1.47
526+26 to 526+76	1.60	1.98	1.73	1.47	1.73	1.47	2.23	2.09	1.98	1.75
526+76 to 527+26	1.70	2.09	1.77	1.60	1.80	1.59	2.09	1.95	1.90	1.59
527+26 to 527+76	1.90	2.30	2.08	1.86	2.02	1.70	2.20	2.06	2.19	1.67
527+76 to 528+26	1.82	2.17	1.93	1.73	1.90	1.75	2.15	2.03	2.20	1.67
528+26 to 528+76	1.50	1.84	1.54	1.90	2.14	2.12	2.16	2.06	2.20	1.77
528+76 to 529+26	1.50	1.86	1.63	1.73	1.89	1.96	2.01	1.84	1.94	1.40
529+26 to 529+76	1.65	1.95	1.69	1.71	1.87	1.88	2.03	1.89	1.91	1.69
529+76 to 530+26	1.51	1.78	1.59	1.72	1.79	1.83	1.92	1.76	1.69	1.85
530+26 to 530+76	1.60	1.89	1.72	1.78	1.92	2.04	2.04	1.81	1.77	2.05
530+76 to 531+26	1.53	1.79	1.60	1.59	1.66	1.85	1.86	1.66	1.77	2.14
531+26 to 531+76	1.81	2.12	1.81	1.64	1.68	2.01	2.06	1.89	2.02	2.37
531+76 to 532+26	1.70	1.99	1.73	1.61	1.71	1.96	2.02	1.88	2.16	2.31
532+26 to 532+76	1.78	2.06	1.85	1.91	2.14	2.18	2.08	1.91	2.05	2.12
532+76 to 533+26	1.67	2.02	1.85	1.75	2.00	1.92	2.12	1.98	2.12	2.23
533+26 to 533+76	1.70	2.05	1.92	1.59	1.73	1.48	2.12	2.01	2.23	2.22
533+76 to 534+26	1.59	1.93	1.77	1.63	1.83	1.58	2.02	1.91	2.07	2.18
534+26 to 534+76	1.66	2.00	1.83	1.74	1.98	1.73	2.08	1.92	2.07	2.16
534+76 to 535+26	1.56	1.91	1.76	1.77	1.95	1.58	1.99	1.83	1.88	2.04
535+26 to 535+76	1.52	2.03	1.76	1.70	1.87	**1.35**	1.84	1.73	1.93	2.20
535+76 to 536+26	1.63	2.29	1.86	1.71	1.94	1.55	1.90	1.83	1.97	2.04
536+26 to 536+76	1.53	2.13	1.78	1.67	1.93	1.60	1.95	1.95	2.10	2.14
536+76 to 537+26	1.49	2.11	1.82	1.67	1.88	1.69	1.99	2.00	2.14	2.10
537+26 to 537+76	1.48	2.10	1.83	1.72	1.80	1.81	1.89	1.88	1.95	1.96
537+76 to 538+26	1.52	2.09	1.82	1.76	1.78	1.79	1.95	1.90	1.97	1.97
538+26 to 538+76	1.62	2.27	1.87	1.93	1.95	1.98	2.04	2.01	2.11	1.95
538+76 to 539+26	1.64	2.23	1.92	2.06	2.00	2.05	2.09	1.96	2.08	1.95
539+26 to 539+76	1.52	2.11	1.84	2.02	1.97	2.00	1.97	1.83	1.95	1.82
539+76 to 540+26	1.50	2.10	1.85	2.03	2.06	2.05	2.09	1.90	2.10	2.03
540+26 to 540+76	1.48	2.01	1.78	1.90	1.98	1.95	2.22	2.01	2.20	1.97
540+76 to 541+26	1.64	2.19	1.95	2.05	2.22	2.03	2.21	2.02	2.14	1.84
541+26 to 541+76	1.53	2.02	1.78	1.89	2.11	1.87	2.15	2.00	2.13	1.87
541+76 to 542+26	1.56	1.98	1.82	2.13	2.36	2.17	2.27	2.09	2.18	1.82
542+26 to 542+76	1.62	2.08	1.91	2.06	2.35	2.16	2.19	1.95	2.11	2.00
542+76 to 543+26	1.54	1.98	1.60	1.85	2.24	2.06	2.31	2.08	2.23	1.96
543+26 to 543+76	1.63	2.09	1.61	1.75	2.16	2.11	2.35	2.13	2.28	2.06
543+76 to 544+26	1.61	2.09	1.71	1.68	2.13	2.14	2.43	2.19	2.40	2.08
544+26 to 544+76	1.50	1.96	1.63	1.63	2.00	2.04	2.26	2.09	2.27	2.18
544+76 to 545+26	1.72	2.24	1.94	1.91	2.21	2.12	2.15	2.07	2.16	2.21
545+26 to 545+76	1.52	1.94	1.68	1.60	2.03	1.90	2.04	1.96	1.98	2.01
545+76 to 546+26	1.59	2.07	1.84	1.89	2.33	2.08	2.30	2.13	2.05	2.10
546+26 to 546+76	1.60	2.06	1.72	1.92	2.19	1.78	2.23	1.98	2.17	2.24
546+76 to 547+26	1.72	2.22	1.93	2.13	2.31	1.93	2.30	2.01	2.23	2.21
547+26 to 547+76	1.76	2.30	1.97	2.12	2.22	1.86	2.30	1.99	2.37	2.39

I95 Kittery-Portsmouth Bridge (North Bound)

Average Pavement Depths

	Inside Lane			Middle Lane			Outside			
Distance	LWP	QP	RWP	LWP	QP	RWP	LWP	QP	RWP	SHOULDER
547+76 to 548+26	1.80	2.32	1.91	2.07	2.12	1.98	2.26	1.97	2.21	2.36
548+26 to 548+76	1.69	2.18	1.76	1.94	1.97	1.91	2.14	1.89	2.14	2.01
548+76 to 549+26	1.58	2.03	1.69	1.89	1.97	2.04	2.21	1.95	2.12	2.37
549+26 to 549+76	1.62	2.09	1.76	2.00	2.15	2.22	2.18	1.92	2.16	2.55
549+76 to 550+26	1.60	2.05	1.68	1.99	2.15	2.23	2.31	2.01	2.11	2.55
550+26 to 550+76	1.69	2.22	1.87	2.11	2.33	2.36	2.35	2.03	2.13	2.54
550+76 to 551+26	1.84	2.42	2.01	1.81	1.99	2.05	2.12	1.82	1.93	2.47
551+26 to 551+76	1.87	2.45	2.16	1.84	2.17	2.17	2.35	2.06	2.16	2.29
551+76 to 552+26	1.87	2.42	2.15	1.80	2.21	2.11	2.31	2.01	2.10	2.35
552+26 to 552+76	1.76	2.27	2.02	1.54	1.94	1.74	2.14	1.91	2.05	2.17
552+76 to 553+26	1.79	2.32	2.06	1.50	1.89	1.61	2.15	1.89	2.16	2.42
553+26 to 553+76	1.65	2.21	1.97	1.49	1.87	1.56	2.08	1.84	1.98	2.55
553+76 to 554+26	1.57	2.11	1.92	1.46	1.90	1.65	2.10	1.86	1.94	2.42
554+26 to 554+76	2.07	2.48	2.26	1.86	2.32	1.98	2.28	2.03	2.08	2.59
554+76 to 555+26	2.25	2.41	2.08	1.74	2.19	2.02	2.13	1.91	1.99	2.59
555+26 to 555+76	2.06	2.16	1.94	1.53	1.93	1.87	2.03	1.81	2.00	2.47
555+76 to 556+26	2.16	2.15	2.00	1.68	2.04	2.09	2.08	1.89	1.92	2.61
556+26 to 556+76	2.26	2.35	2.20	1.85	2.19	2.31	2.02	1.68	1.63	2.18
556+76 to 557+26	2.06	2.08	2.10	1.85	2.21	2.38	2.10	1.77	1.79	1.89
557+26 to 557+76	2.04	2.20	2.17	1.88	2.23	2.48	2.14	1.86	1.82	2.38
557+76 to 558+26	1.95	2.10	2.02	1.72	2.05	2.33	2.24	1.92	2.05	2.50
558+26 to 558+76	2.00	2.17	2.04	1.67	1.97	2.13	2.12	1.83	1.87	2.01
558+76 to 559+26	2.12	2.27	2.27	1.74	2.06	2.11	2.03	1.76	1.77	2.12
559+26 to 559+76	2.27	2.41	2.41	1.81	2.29	2.24	2.07	1.83	1.85	2.15
559+76 to 560+26	2.19	2.33	2.23	1.86	2.33	2.14	2.28	2.20	2.14	2.54
560+26 to 560+76	2.02	2.18	2.05	1.77	2.13	1.98	2.31	2.42	2.24	2.49
560+76 to 561+26	1.93	2.13	2.00	1.78	2.08	1.96	2.37	2.47	2.34	2.41
561+26 to 561+76	2.06	2.31	2.10	1.85	2.06	1.91	2.27	2.38	2.21	2.48
561+76 to 562+26	2.04	2.41	2.24	1.93	2.05	1.97	2.18	2.34	2.19	2.58
562+26 to 562+76	1.84	2.22	2.03	1.96	1.99	2.18	2.42	2.53	2.30	**2.87**
562+76 to 563+26	1.85	2.24	1.99	1.84	1.87	1.88	2.16	2.24	2.10	2.31
563+26 to 563+76	1.85	2.32	2.07	1.92	2.12	1.92	2.28	2.37	2.13	2.35
563+76 to 564+26	1.94	2.37	2.20	1.87	2.25	1.96	2.26	2.37	2.14	2.38
564+26 to 564+76	1.98	2.27	2.11	1.68	2.26	2.02	2.30	2.39	2.05	2.40
564+76 to 565+26	1.68	2.00	1.85	1.58	2.24	2.09	2.43	2.54	2.23	2.78
565+26 to 565+76	1.60	1.94	1.89	1.65	2.20	1.98	2.21	2.31	2.05	2.49
565+76 to 566+26	1.82	2.23	2.19	1.72	2.17	1.91	2.18	2.29	1.92	2.38
566+26 to 566+76	1.88	2.29	2.22	1.70	2.09	2.11	2.28	2.27	1.88	2.29
566+76 to 567+26	1.74	2.13	1.96	1.38	1.70	1.76	1.96	2.04	1.64	1.93
567+26 to 567+76	1.69	2.13	1.88	1.48	2.02	1.82	2.02	2.12	1.70	2.30
567+76 to 568+26	1.76	2.14	1.91	1.49	2.12	1.56	1.83	1.91	1.59	1.62
568+26 to 568+76	1.91	2.29	2.01	1.58	2.37	1.52	1.92	2.05	1.75	1.58
568+76 to 569+26	1.82	2.14	1.94	1.71	2.45	1.72	2.06	2.17	1.82	2.00
Average	**1.74**	**2.14**	**1.90**	**1.77**	**2.04**	**1.92**	**2.14**	**2.01**	**2.04**	**2.16**
Overall Minimum	**1.35**									
Overall Maximum	**2.87**									
Overall Average	**1.99**									

I95 Kittery-Portsmouth Bridge (South Bound)

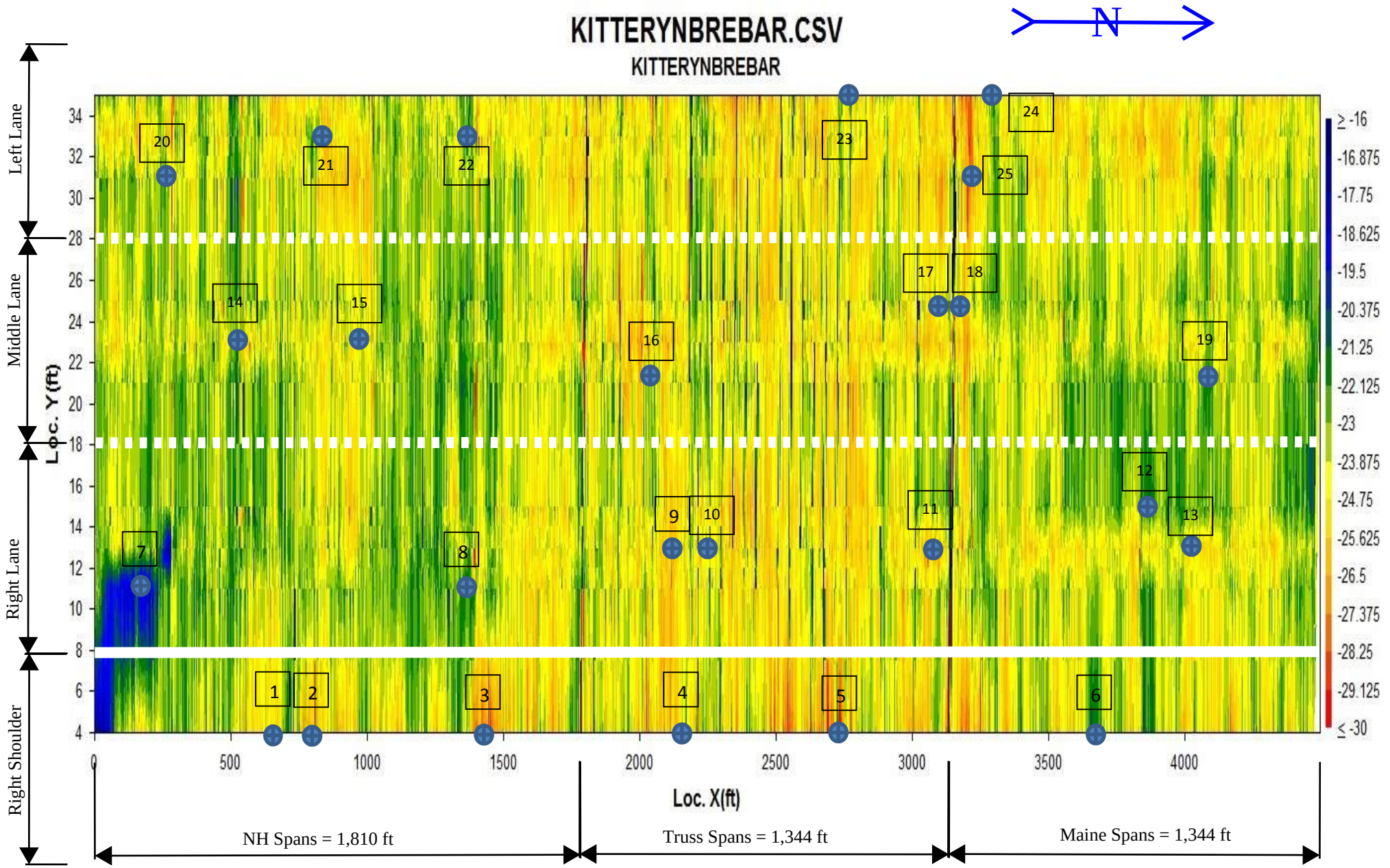
Average Pavement Depths

	Inside Lane			Middle Lane			Outside			
Distance	LWP	QP	RWP	LWP	QP	RWP	LWP	QP	RWP	SHOULDER
569+34 to 568+84	1.60	1.73	1.87	1.93	2.14	1.66	1.60	1.71	1.40	1.84
568+84 to 568+34	1.58	1.80	1.89	1.86	2.16	1.58	1.93	2.12	1.90	2.24
568+34 to 567+84	1.78	1.95	2.01	2.13	2.34	1.74	1.89	2.11	1.81	2.27
567+84 to 567+34	1.73	1.89	1.92	1.81	2.08	1.53	1.76	1.96	1.67	1.97
567+34 to 566+84	1.88	1.94	2.04	1.69	1.91	1.45	1.94	2.19	1.85	2.06
566+84 to 566+34	1.98	1.99	2.14	1.79	1.98	1.48	1.96	2.18	1.90	2.09
566+34 to 565+84	2.18	2.13	2.35	2.10	2.26	1.53	2.03	2.24	1.96	2.27
565+84 to 565+34	2.22	2.09	2.29	2.14	2.32	1.70	2.03	2.20	1.90	2.29
565+34 to 564+84	2.03	2.07	2.25	2.13	2.30	1.56	1.97	2.11	1.75	2.22
564+84 to 564+34	1.86	1.93	2.05	2.01	2.23	1.46	1.88	2.05	1.59	1.90
564+34 to 563+84	1.81	1.89	1.95	1.87	2.20	1.49	1.80	1.98	1.52	2.03
563+84 to 563+34	1.75	1.88	1.91	1.85	2.16	1.44	1.76	1.92	1.50	1.97
563+34 to 562+84	1.85	1.97	2.02	1.97	1.98	1.51	1.82	1.96	1.58	1.97
562+84 to 562+34	1.92	2.01	2.07	2.10	2.38	1.67	1.95	2.11	1.69	2.27
562+34 to 561+84	1.75	1.83	1.78	1.85	2.21	1.57	1.75	1.88	1.38	2.17
561+84 to 561+34	1.94	1.96	1.88	1.89	2.18	1.65	1.88	2.01	1.58	2.23
561+34 to 560+84	1.88	1.98	1.94	1.74	2.00	1.51	1.86	1.98	1.57	2.35
560+84 to 560+34	1.86	1.96	1.99	1.81	2.01	1.51	1.87	2.01	1.69	2.36
560+34 to 559+84	1.71	1.77	1.80	1.85	1.80	1.56	1.90	2.06	1.85	2.30
559+84 to 559+34	1.77	1.86	1.95	1.90	2.22	1.71	1.89	2.00	1.86	2.07
559+34 to 558+84	1.81	1.95	2.08	1.92	2.26	1.89	1.96	2.10	1.87	2.23
558+84 to 558+34	1.72	1.91	2.05	1.91	2.26	1.77	1.99	2.13	1.92	2.32
558+34 to 557+84	1.60	1.80	1.93	1.93	2.21	1.66	1.93	2.11	1.87	2.20
557+84 to 557+34	1.49	1.63	1.73	2.03	2.25	1.65	1.94	2.09	1.84	2.04
557+34 to 556+84	1.69	1.89	1.98	2.22	2.41	1.73	1.98	2.14	1.85	2.30
556+84 to 556+34	1.58	1.72	1.77	2.08	2.28	1.66	1.84	1.98	1.67	2.21
556+34 to 555+84	1.77	1.88	1.89	2.11	2.31	1.72	1.92	2.06	1.82	2.24
555+84 to 555+34	1.85	1.90	1.94	2.01	2.18	1.65	1.97	2.11	1.91	2.24
555+34 to 554+84	1.94	1.82	1.81	2.06	2.31	1.70	1.84	1.97	1.77	2.22
554+84 to 554+34	2.17	1.98	2.02	2.09	2.30	1.89	2.14	2.31	2.16	2.28
554+34 to 553+84	2.22	1.98	2.00	2.06	2.28	1.86	2.00	2.16	2.07	2.16
553+84 to 553+34	1.97	1.77	1.78	1.86	2.16	1.84	1.85	2.00	1.82	1.99
553+34 to 552+84	2.29	2.02	2.13	2.07	2.29	1.97	1.90	2.09	1.84	1.90
552+84 to 552+34	2.34	1.98	2.10	2.06	2.33	2.04	1.89	2.11	1.82	2.01
552+34 to 551+84	2.44	2.14	2.26	2.14	2.34	2.08	1.90	2.14	1.87	2.00
551+84 to 551+34	2.51	2.15	2.26	2.06	2.27	2.00	2.00	2.28	1.96	2.29
551+34 to 550+84	2.52	2.20	2.30	2.02	2.22	1.87	2.01	2.30	2.02	2.28
550+84 to 550+34	2.48	2.16	2.21	2.02	2.25	1.81	1.90	2.21	1.90	2.09
550+34 to 549+84	2.44	2.09	2.15	1.95	2.26	1.84	1.84	2.13	1.85	2.10
549+84 to 549+34	2.49	2.20	2.20	2.11	2.38	2.02	1.98	2.22	1.91	2.32
549+34 to 548+84	2.38	2.04	2.07	1.98	2.21	1.82	2.05	2.36	2.15	2.38
548+84 to 548+34	2.44	2.07	2.16	2.02	2.24	1.88	1.91	2.18	1.98	2.14
548+34 to 547+84	2.21	1.97	2.07	2.12	2.33	2.02	2.11	2.39	2.09	2.23
547+84 to 547+34	2.37	2.10	2.10	2.10	2.29	1.96	2.16	2.45	2.20	2.37
547+34 to 546+84	2.45	2.12	2.15	2.17	2.14	1.86	2.06	2.31	2.01	1.86
546+84 to 546+34	2.35	2.09	2.17	2.06	1.73	1.79	2.12	2.37	2.04	1.66
546+34 to 545+84	2.42	2.14	2.26	2.26	1.88	1.95	2.26	2.44	2.05	1.75

I95 Kittery-Portsmouth Bridge (South Bound)

Average Pavement Depths

	Inside Lane			Middle Lane			Outside			
Distance	LWP	QP	RWP	LWP	QP	RWP	LWP	QP	RWP	SHOULDER
545+84 to 545+34	2.24	2.01	2.16	2.19	1.79	1.83	2.06	2.20	1.83	1.61
545+34 to 544+84	2.05	1.87	2.07	2.11	1.73	1.78	1.96	2.07	1.76	1.60
544+84 to 544+34	2.00	1.77	1.89	1.88	1.62	1.74	2.10	2.22	1.90	1.62
544+34 to 543+84	1.80	1.56	1.71	1.82	1.57	1.78	2.04	2.16	1.84	1.47
543+84 to 543+34	2.29	1.96	2.06	1.86	1.60	1.70	1.94	2.11	1.82	1.55
543+34 to 542+84	2.19	1.96	2.11	1.90	1.63	1.71	1.90	2.06	1.81	1.70
542+84 to 542+34	2.17	1.89	2.00	1.88	1.63	1.72	2.03	2.19	2.00	1.96
542+34 to 541+84	2.26	2.02	2.12	1.95	1.72	1.97	2.02	2.17	1.93	2.19
541+84 to 541+34	1.93	1.75	1.77	1.69	1.54	1.76	1.88	2.00	1.83	1.87
541+34 to 540+84	2.56	2.28	2.41	1.94	1.65	1.55	1.81	1.95	1.80	1.96
540+84 to 540+34	2.57	2.29	2.23	2.14	1.76	1.77	1.89	2.03	1.84	2.11
540+34 to 539+84	2.56	2.19	1.97	2.11	1.78	1.87	1.83	1.97	1.79	1.99
539+84 to 539+34	2.57	2.18	1.94	2.20	1.83	1.99	2.04	2.17	1.87	1.87
539+34 to 538+84	2.39	2.09	1.83	2.12	1.77	1.99	2.14	2.28	2.00	2.13
538+84 to 538+34	2.38	2.13	1.88	2.05	1.70	1.78	2.08	2.23	2.06	2.16
538+34 to 537+84	2.39	2.08	1.94	2.09	1.89	1.96	2.08	2.20	1.92	2.18
537+84 to 537+34	2.42	2.15	1.98	2.11	2.10	1.94	1.88	2.01	1.81	1.89
537+34 to 536+84	2.51	2.24	2.06	2.11	2.10	1.97	1.84	1.94	1.68	1.85
536+84 to 536+34	2.36	2.13	1.99	2.12	2.10	1.93	1.94	2.08	1.89	1.91
536+34 to 535+84	2.24	1.99	1.82	2.01	2.03	1.89	1.95	2.07	1.86	2.02
535+84 to 535+34	2.42	2.13	2.00	2.22	2.21	2.00	1.93	2.05	1.76	1.79
535+34 to 534+84	2.27	2.01	1.86	2.28	2.27	2.08	1.92	2.03	1.67	2.13
534+84 to 534+34	2.39	2.12	1.97	2.25	2.25	2.06	1.87	1.97	1.62	2.08
534+34 to 533+84	2.23	1.97	1.76	1.98	1.98	1.79	1.90	2.01	1.69	2.24
533+84 to 533+34	2.30	2.01	1.78	2.09	2.14	1.95	1.83	1.93	1.58	2.43
533+34 to 532+84	2.23	1.94	1.78	2.13	2.11	1.97	1.89	2.01	1.67	2.44
532+84 to 532+34	2.31	2.02	1.79	2.10	2.08	1.82	1.98	2.12	1.81	2.86
532+34 to 531+84	2.07	1.92	1.75	2.19	2.14	1.88	1.90	2.01	1.67	2.92
531+84 to 531+34	2.03	1.95	1.83	2.16	2.04	1.79	1.88	2.02	1.67	2.87
531+34 to 530+84	2.23	2.12	1.95	2.21	2.07	1.74	1.57	1.66	**1.24**	2.50
530+84 to 530+34	2.20	2.04	1.83	2.20	2.05	1.85	1.83	1.93	1.57	2.59
530+34 to 529+84	2.03	1.96	1.78	2.29	2.18	1.94	1.93	2.03	1.73	2.64
529+84 to 529+34	2.33	2.18	1.99	2.15	2.03	1.73	1.93	2.03	1.83	2.79
529+34 to 528+84	2.16	2.08	1.93	2.22	2.17	2.02	2.00	2.13	1.82	2.55
528+84 to 528+34	2.15	2.10	1.88	2.19	2.12	1.99	1.97	2.10	1.79	2.44
528+34 to 527+84	2.47	2.31	2.06	2.27	2.17	1.96	1.95	2.09	1.80	2.72
527+84 to 527+34	2.59	2.36	2.20	2.38	2.22	1.85	1.85	1.96	1.69	2.82
527+34 to 526+84	2.48	2.22	2.06	2.28	2.19	1.88	2.17	2.31	2.16	**2.97**
526+84 to 526+34	2.32	2.07	1.91	1.68	1.63	1.33	1.89	1.97	1.84	2.44
526+34 to 525+84	2.40	2.25	2.03	1.61	1.54	1.29	1.84	1.99	1.85	2.34
525+84 to 525+34	2.34	2.19	2.02	1.55	1.49	1.39	2.14	2.31	2.14	2.60
525+34 to 524+84	2.02	1.97	1.83	1.56	1.56	1.51	2.10	2.29	2.08	2.47
524+84 to 524+34	2.15	2.01	1.83	1.75	1.84	1.91	2.22	2.37	2.12	2.35
524+34 to 523+84	2.23	2.18	1.95	1.79	1.87	1.98	2.31	2.48	2.2	2.32
Average	**2.15**	**2.01**	**1.99**	**2.02**	**2.06**	**1.78**	**1.95**	**2.11**	**1.83**	**2.18**
Overall Minimum	**1.24**									
Overall Maximum	**2.97**									
Overall Average	**2.01**									


KITTERYNBREBAR.CSV
KITTERYNBREBAR
N
Left Lane
Middle Lane
Right Lane
Right Shoulder
Loc. Y(ft)
Loc. X(ft)
0
500
1000
1500
2000
2500
3000
3500
4000
4
6
8
10
12
14
16
18
20
22
24
26
28
30
32
34
≥ -16
-16.875
-17.75
-18.625
-19.5
-20.375
-21.25
-22.125
-23
-23.875
-24.75
-25.625
-26.5
-27.375
-28.25
-29.125
≤ -30
1
2
3
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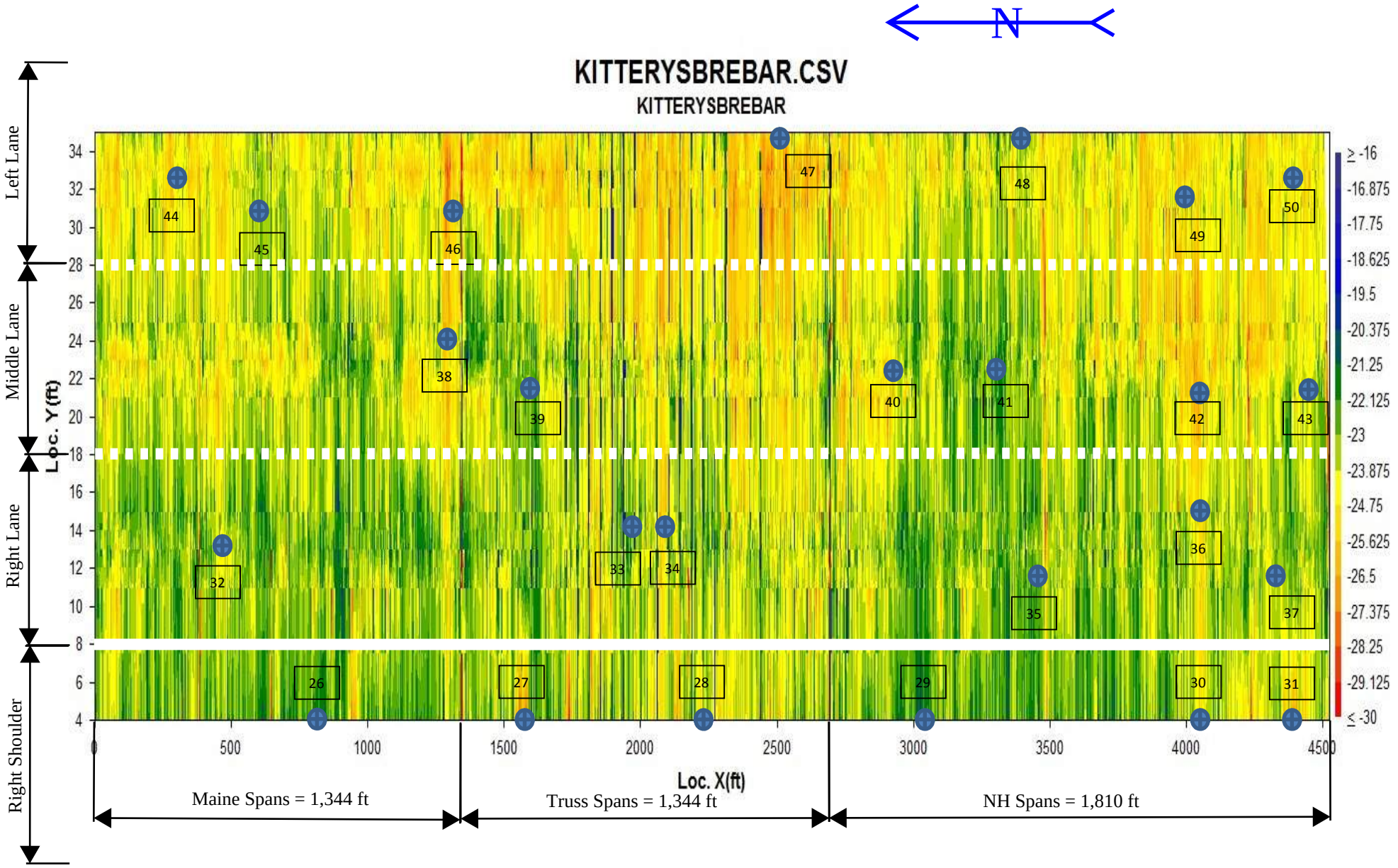
25
NH Spans = 1,810 ft
Truss Spans = 1,344 ft
Maine Spans = 1,344 ft


N
KITTERYSBREBAR.CSV
KITTERYSBREBAR
Left Lane
Middle Lane
Right Lane
Right Shoulder
Loc. Y(ft)
Loc. X(ft)
0
500
1000
1500
2000
2500
3000
3500
4000
4500
4
6
8
10
12
14
16
18
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22
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45
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47
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49
50
≥ -16
-16.875
-17.75
-18.625
-19.5
-20.375
-21.25
-22.125
-23
-23.875
-24.75
-25.625
-26.5
-27.375
-28.25
-29.125
≤ -30
Maine Spans = 1,344 ft
Truss Spans = 1,344 ft
NH Spans = 1,810 ft